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ABSTRACT

This publication provides projections of statistics for elementary and secondary schools and institutions of higher education. Projections for the 10-year period from 1972-73 to 1981-82 are made for enrollments, graduates, teachers, and expenditures. Based mainly on 1961-62 to 1971-72 Office of Education data, the projections primarily assume that the past 11 years' trends in enrollment rates, retention rates, class sizes, and per pupil expenditures will continue through 1981-82. Numerous tables and graphs illustrate the data. This document supercedes a previous report cited under ED 066 807. (Author)

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HIGHLIGHTS

If present trends continue, we can expect changes in—

- Enrollment in all regular public and private elementary and secondary day schools:
  - From 51.3 million in 1971 to 49.8 million in 1981.
- Degree-credit enrollment in institutions of higher education:
  - From 8.1 million in 1971 to 11.1 million in 1981.
- High school graduates from all public and private secondary day schools:
  - From 3.0 million in 1971–72 to 3.3 million in 1981–82.
- Bachelor's degrees granted by institutions of higher education:
  - From 876,000 in 1971–72 to 1,242,000 in 1981–82.
- Full-time and part-time classroom teachers in all regular public and private elementary and secondary day schools:
  - From 2,275,000 in 1971 to 2,381,000 in 1981.
- Full-time-equivalent instructional staff for resident courses in institutions of higher education:
  - From 479,000 in 1971 to 635,000 in 1981.
- Total expenditures of all regular public and private elementary and secondary schools:
  - From 53.6 billion in 1971–72 to 70.0 billion in 1981–82 (in 1971–72 dollars).
- Total expenditures of institutions of higher education:
  - From 29.9 billion in 1971–72 to 45.7 billion in 1981–82 (in 1971–72 dollars).

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PROJECTIONS OF EDUCATIONAL STATISTICS TO 1981-82

1972 Edition

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FOREWORD

This publication provides projections of statistics for elementary and secondary schools and institutions of higher education. The statistics include enrollments, graduates, teachers, and expenditures. These projections supersede the ones shown in *Projections of Educational Statistics to 1980–81*, 1971 edition. They are based mainly on 1961–62 to 1971–72 Office of Education data, and they cover the period 1972–73 to 1981–82 for the United States. Table 1 is a summary of these projections and is available separately in a pocket-sized folder as *Statistics of Trends in Education, 1961–62 to 1981–82*, 1972 edition. Many of these data are available by State for 1971–72 in the Office of Education publication, *Digest of Educational Statistics*, 1972 edition.

The projections shown here primarily assume that the past 11 years' trends in enrollment rates, retention rates, class sizes, and per pupil expenditures will continue through 1981–82. Further information about projected changes and the assumptions on which these are based are shown in the main body of this report. Details of the methodology used in making these projections are given in the appendixes.

Dorothy M. Gilford,
Assistant Commissioner
for Educational Statistics

SPECIAL NOTE

Preliminary fall 1972 data on enrollments in institutions of higher education were not available in time to be used to determine the trends on which projections are based. However, these 1972 preliminary enrollment data and estimates based on these data are shown and footnoted in tables 2 and 5–19.

Projections for 1972 derived from the 1961 to 1971 trends would have been 1.6 percent higher for total degree-credit enrollment and 0.3 percent lower for total non-degree-credit enrollment than the corresponding preliminary enrollment figures shown.

The 1972 preliminary enrollment figures undoubtedly will be modified after more intensive editing. Experience indicates that the final grand enrollment figure for 1972 will be within 2 percent of these preliminary figures.

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CHAPTER I

Introduction and Summary

This is the ninth in a series of annual projections of educational statistics. The projections are revised each year in order to take account of current information and emerging trends.

For the 2d year, the enrollment projections in this edition are based on population projections by the U.S. Bureau of the Census that take into account changes revealed by the 1970 census. However, the intercensal estimates (1961–69) on which most of the enrollment trends are based have not yet been changed on the basis of the 1970 census.

The statistical universe from which the enrollments and other educational data shown in this report were drawn consists of (1) the public school districts which report to their respective State departments of education, (2) the nonpublic grade schools included in the Nonpublic School Directory of the U.S. Office of Education,[1] and (3) the institutions of higher education meeting the requirements for inclusion in the Higher Education Directory of the U.S. Office of Education.[2] The coverage is for the 50 States and the District of Columbia and excludes extension centers of U.S. educational institutions abroad.

The published sources of the data, usually Office of Education surveys, are noted in each table. The tables are grouped by subject matter—together with detailed explanations of inclusions, exclusions, and descriptions of the data and projection methods—in separate chapters on enrollments, graduates, teachers, expenditures, and tuition and other charges.

The projections are based primarily on trends in enrollment rates of the population over the past 11 years and on the anticipated sizes of population groups from which enrollment will be drawn in the next 10 years.

However, all projections are based on assumptions, and not everyone agrees on what is likely to occur in the future. Therefore, the methods and assumptions used to develop these projections are shown in detail. Footnotes to the tables state the assumptions on which the projections are based, with references to tables and other data in the appendixes giving technical explanations of estimation and projection methods. The relationship of enrollment and other rates to time and descriptions of the data on which they are based are shown in appendix A, tables A–1 through A–5. The projections of population of the typical age at each level of enrollment are shown in appendix B, tables B–1 and B–2. (The population data used are those projected by the Bureau of the Census and reported in its population series P–25 [3].) The appendixes also include selected details of classification changes, a glossary of terms, and a number of auxiliary tables.

The enrollment rates and the population age groups grew steadily during the sixties. However, both enrollment rates and population age groups are now growing less rapidly and some are decreasing.

The interaction of these two projection components determines, directly or indirectly, the numbers expected in the different areas of education. The numbers expected are shown graphically for the principal areas of education in figures 1 through 9 and, in more detail, with percentage increases or decreases from 1961 to 1971 and from 1971 to 1981, in table 1.

---

[1] U.S. Department of Health, Education, and Welfare, Office of Education, *Nonpublic School Directory, Elementary and Secondary Day Schools, 1968-69*, U.S. Government Printing Office, Washington, D.C., 1970.

[2] U.S. Department of Health, Education, and Welfare, Office of Education, *Education Directory, 1972-73, Higher Education*, U.S. Government Printing Office, Washington, D.C., 1973.

[3] U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Estimates and Projections, Projections of the Population of the United States, by Age and Sex, 1970 to 2020," Series P–25, No. 470, November 1970.

A summary of major trends, past and projected, follows:

Major trends in education

(1) The school-age population is increasing less rapidly or declining.

	Percent change	
	1961 to 1971	*1971 to 1981*
Elementary age (5–13)	7.0	−2.4
Secondary age (14–17)	34.0	−9.8
Higher education undergraduate age (18–21)	44.2	10.6

(2) The high school graduation rate is increasing.

	Graduates as percent of 18-year-olds
1961–62	69.3
1971–72	75.9
1981–82	85.7

(3) The proportion of high school diplomas awarded to boys is increasing and is expected to exceed 50 percent before 1980.

	Boys as percent of all graduates
1961–62	48.9
1971–72	49.6
1981–82	50.1

(4) Proportionately more people are earning college degrees.

	Bachelor's degrees as percent of graduation age population
1961–62	16.7
1971–72	24.5
1981–82	29.5

(5) The proportion of bachelor's and first-professional degrees awarded to women is increasing.

	Women as percent of bachelor's and first-professional-degree recipients
1961–62	39.7
1971–72	43.7
1981–82	46.7

(6) Degree-credit enrollment in 2-year institutions is growing faster than in 4-year institutions.

	Degree-credit students in 2-year institutions as percent of all degree-credit students
1961	13.4
1971	21.3
1981	27.0

(7) The ratio of public elementary and secondary students to classroom teachers is declining.

	Ratio of students to classroom teachers		
	Total	*Elementary*	*Secondary*
1961	25.6	28.3	21.7
1971	22.3	24.3	19.9
1981	20.8	22.2	18.8

(8) The cost of educating public elementary and secondary students is increasing.

	Current expenditure per pupil in average daily attendance (1971–72 dollars)
1961–62	$569
1971–72	934
1981–82	1,303

(9) The cost of educating college students is increasing.

	Current expenditures per full-time-equivalent student for student education (1971–72 dollars)		
	All institutions	*Publicly controlled institutions*	*Privately controlled institutions*
1961–62	$1,676	$1,598	$1,797
1971–72	2,367	2,189	2,888
1981–82	3,040	2,822	3,959

FIGURE 1. ENROLLMENT IN GRADES K-12 OF REGULAR DAY SCHOOLS, BY INSTITUTIONAL CONTROL AND ORGANIZATIONAL LEVEL: UNITED STATES, FALL 1961 TO 1981

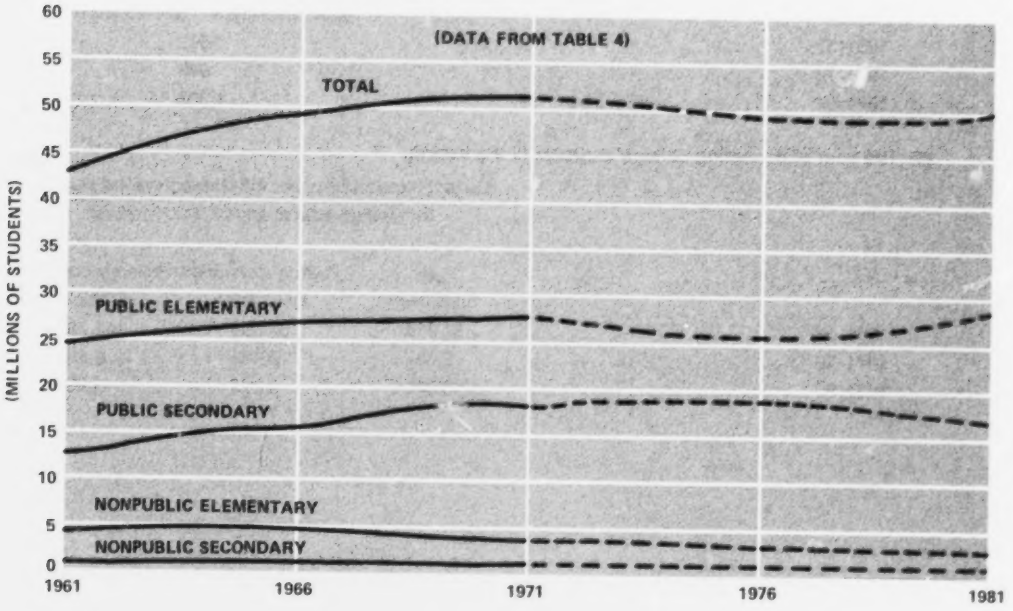

FIGURE 2. TOTAL DEGREE-CREDIT ENROLLMENT IN INSTITUTIONS OF HIGHER EDUCATION, BY CONTROL AND TYPE OF INSTITUTION: UNITED STATES, FALL 1961 TO 1981

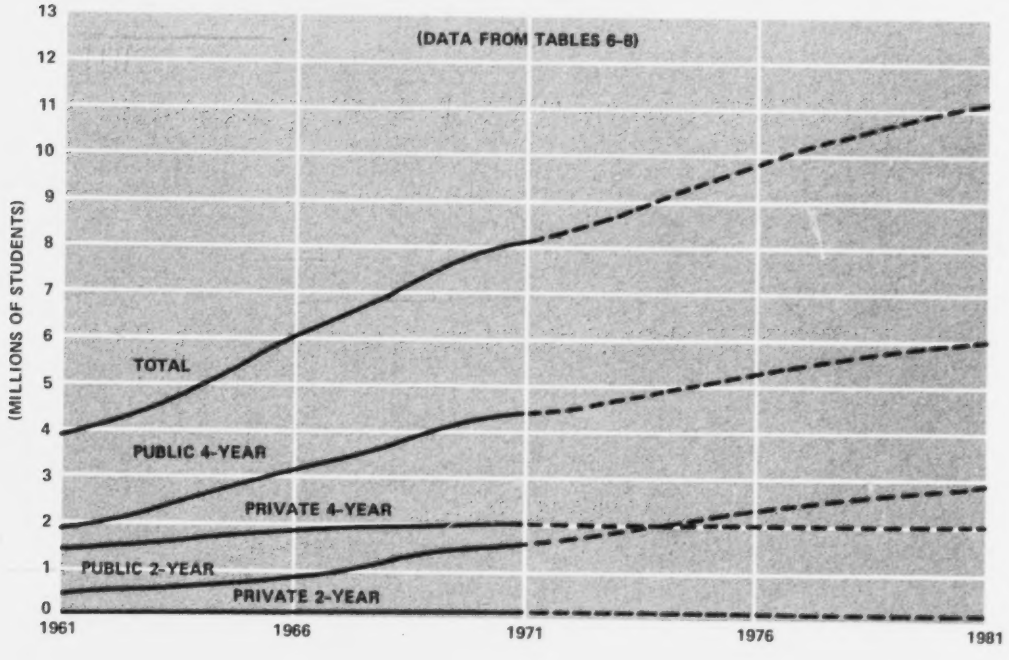

FIGURE 3. HIGH SCHOOL GRADUATES: UNITED STATES, 1961-62 TO 1981-82

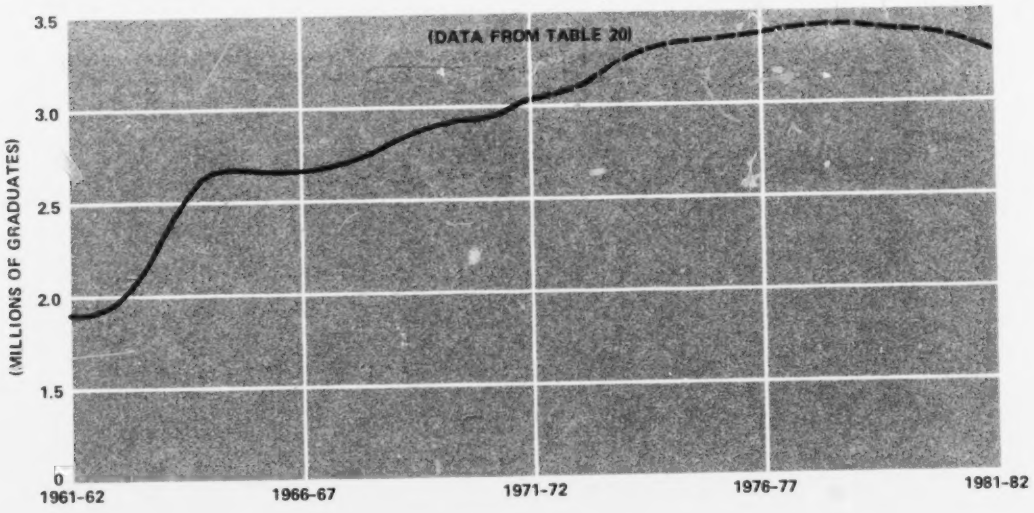

FIGURE 4. EARNED DEGREES, BY LEVEL: UNITED STATES, 1961-62 TO 1981-82

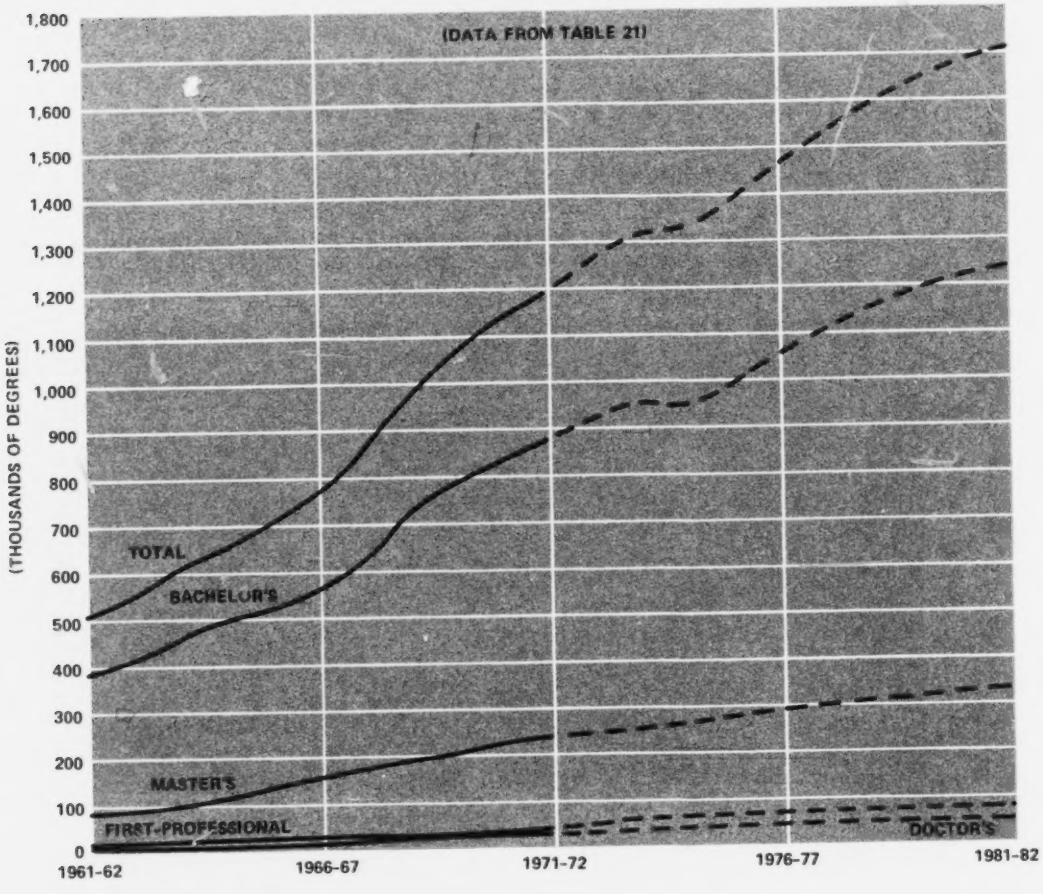

FIGURE 5. CLASSROOM TEACHERS IN REGULAR ELEMENTARY AND SECONDARY SCHOOLS, BY INSTITUTIONAL CONTROL AND ORGANIZATIONAL LEVEL: UNITED STATES, FALL 1961 TO 1981

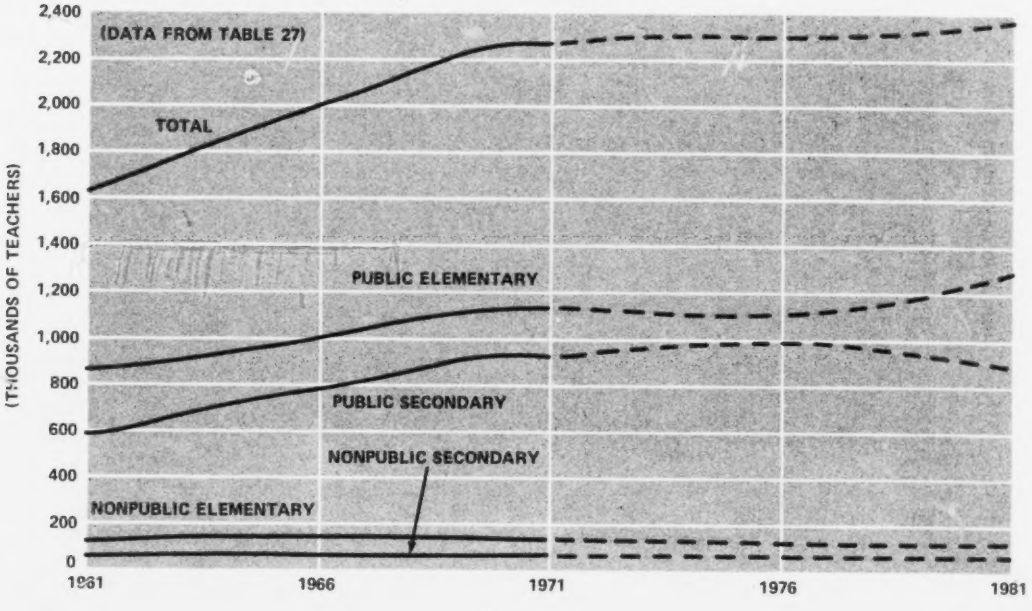

FIGURE 6. INSTRUCTIONAL STAFF FOR RESIDENT COURSES IN INSTITUTIONS OF HIGHER EDUCATION, BY PROFESSIONAL RANK: UNITED STATES, FALL 1961 TO 1981

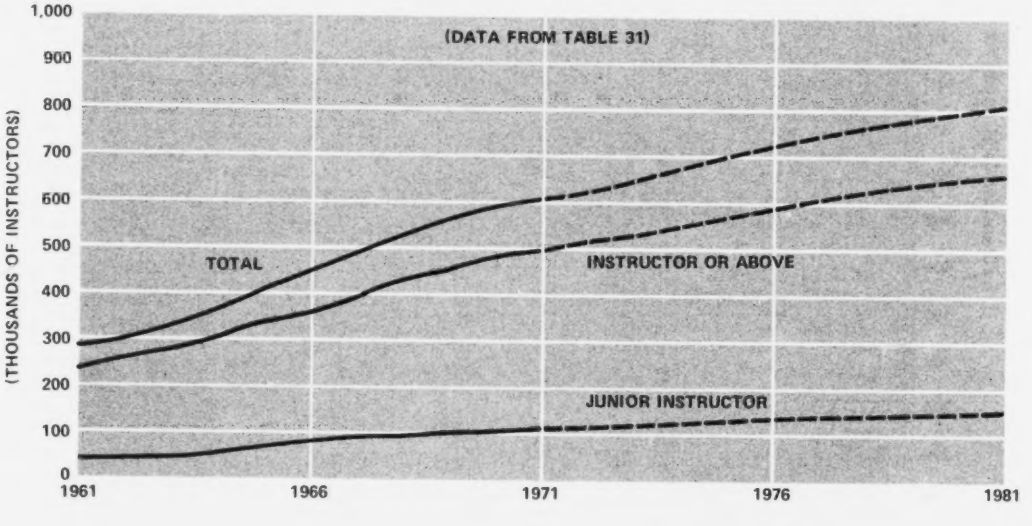

FIGURE 7. TOTAL EXPENDITURES (1971-72 DOLLARS), BY REGULAR ELEMENTARY AND SECONDARY DAY SCHOOLS: UNITED STATES, 1961-62 TO 1981-82

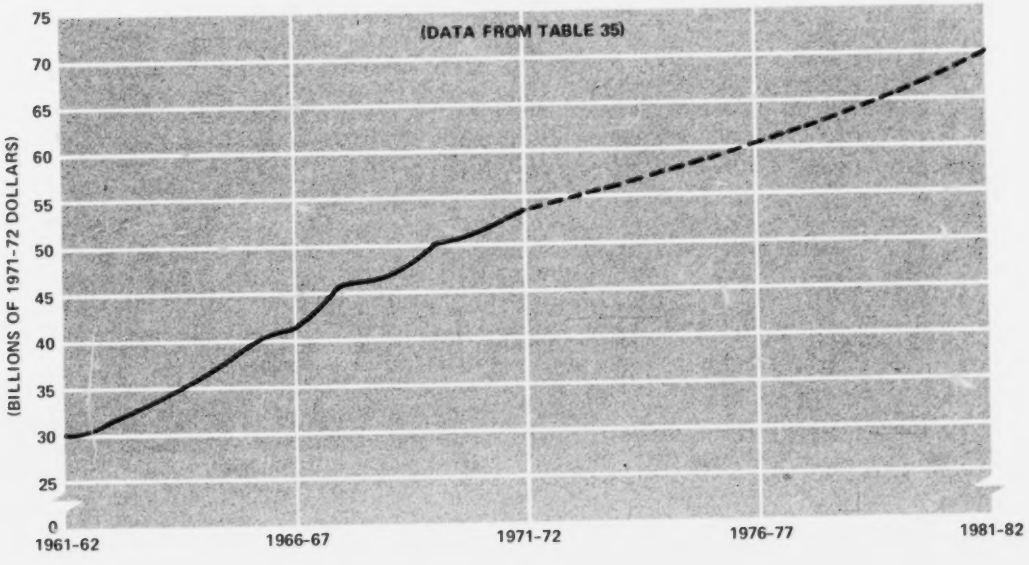

FIGURE 8. TOTAL EXPENDITURES (1971-72 DOLLARS), BY INSTITUTIONS OF HIGHER EDUCATION: UNITED STATES, 1961-62 TO 1981-82

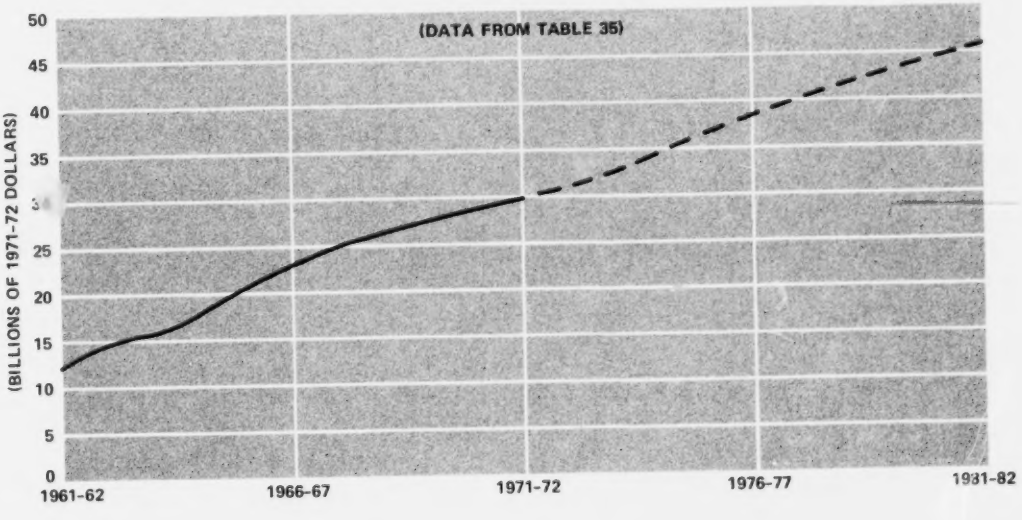

FIGURE 9. SCHOOL-AGE POPULATION: UNITED STATES, OCTOBER 1961 TO 1981

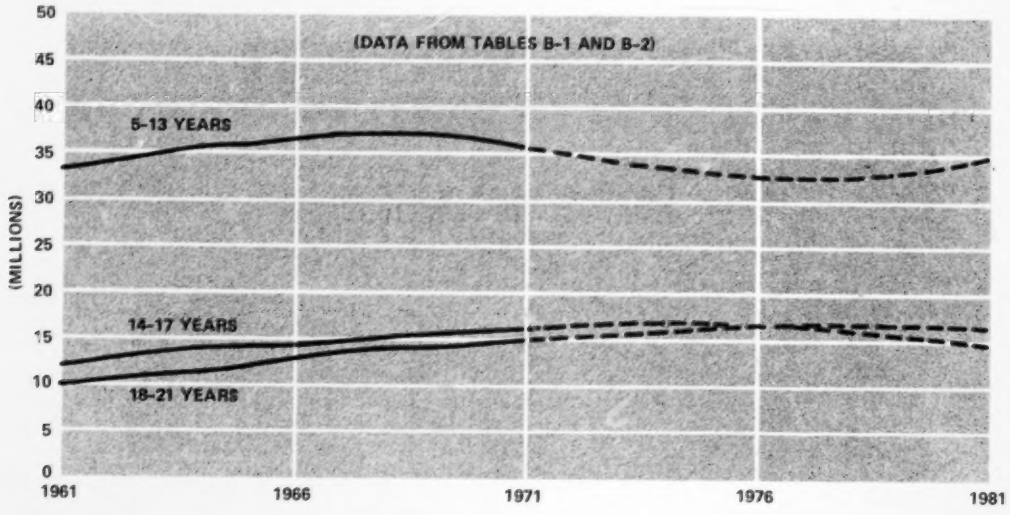

Table 1.—Summary of trends in education: United States, 1961–62 to 1981–82

Characteristic	Fall 1961	Fall 1971	Percent change, 1961 to 1971	Fall 1981 [1] (projected)	Percent change, 1971 to 1981
	Thousands			Thousands	
School-age population:					
5–13	33,461	35,790	7	34,924 [2]	—2
14–17	12,199	16,343	34	14,734 [2]	—10
18–21	10,379	14,966	44	16,545 [2]	11
18 (nearest birthday)	2,832	3,932	39	3,991 [2]	2
Public school districts	35.7	17.3	—52	.....	.....
Operating	31.2	16.8	—46	.....	.....
Nonoperating	4.5	0.5	—89	.....	.....
Enrollment:					
K–grade 12	43,164	51,281	19	49,800	—3
K–8	32,695	36,165	11	35,500	—2
9–12	10,469	15,116	44	14,300	—5
Public	37,464	46,081	23	45,500	—1
K–8	28,095	32,265	15	32,500	1
9–12	9,369	13,816	47	13,000	—6
Nonpublic	5,700	5,200	—9	4,300	—17
Higher education:					
Degree credit	3,861	8,116	110	11,108	37
Public	2,329	6,014	158	8,937	49
Private	1,532	2,102	38	2,171	3
4–year	3,343	6,391	91	8,110	27
2–year	518	1,725	233	2,998	74
Undergraduate	3,474	7,208	108	9,919	37
First time	1,018	1,766	73	2,268	28
Graduate	386	908	135	1,189	31
Men	2,409	4,717	96	6,123	30
Women	1,452	3,399	134	4,985	46
Full–time	2,714	5,676	109	7,542	33
Part–time	1,147	2,440	113	3,566	46
Full–time-equivalent	3,092	6,482	110	8,567	32
Nondegree credit	186	833	348	1,424	71
Public	141	790	460	1,378	74
Private	46	42	—9	46	10
	1961–62	1971–72		1981–82	
High school graduates	1,925	3,043	58	3,298	8
Public	1,685	2,743	63	2,998	9
Nonpublic	240	300	25	300	0
Men	941	1,509	60	1,653	10
Women	984	1,534	56	1,645	7

See footnotes at end of table.

Table 1.—Summary of trends in education: United States, 1961–62 to 1981–82—Continued

Characteristic	Fall 1961	Fall 1971	Percent change, 1961 to 1971	Fall 1981[1] (projected)	Percent change, 1971 to 1981
	Thousands			**Thousands**	
Percent of 18-year-olds graduating from high school	69.3	75.9	.....	85.7	.....
Percent of high school graduates going on to college	53.5	59.1	.....	67.5	.....
Earned degrees:					
Bachelor's	388	876	126	1,242	42
Men	234	493	111	662	34
Women	154	383	149	580	51
First-professional	26.5	45.2	71	79.5	76
Men	25.7	42.1	64	71.1	69
Women	0.8	3.1	288	8.4	171
Master's	88.4	239.0	170	332.0	39
Men	59.7	142.0	138	177.0	25
Women	28.7	97.0	238	155.0	60
Doctor's	11.6	34.6	198	53.5	55
Men	10.4	29.4	183	42.3	44
Women	1.2	5.2	333	11.2	115
Elementary and secondary instructional staff:	**Fall 1961**	**Fall 1971**		**Fall 1981**	
Classroom teachers	1,643	2,275	38	2,381	5
Elementary	992	1,279	29	1,411	10
Secondary	651	996	53	970	—3
Public	1,461	2,063	41	2,188	6
Elementary	869	1,138	31	1,289	13
Secondary	592	925	56	899	—3
Nonpublic	182	212	16	193	—9
Other instructional staff (public)	127	225	77	241	7
Higher education instructional staff, resident courses	292	603	107	800	33
Full-time equivalent	214	479	124	635	33

Table 1.—Summary of trends in education: United States, 1961–62 to 1981–82—Continued

Characteristic	Unadjusted dollars		Constant 1971–72 dollars
	1961–62	1971–72	1981–82
Total expenditures by regular educational institutions: [3]	**Billions of dollars**		
All levels	$29.4	$83.5	$115.7
Public	23.2	68.5	96.7
Nonpublic	6.1	15.0	19.0
Elementary and secondary schools	20.9	53.6	70.0
Public	18.5	48.6	64.4
Nonpublic	2.3	5.0	5.6
Institutions of higher education	8.5	29.9	45.7
Public	4.7	19.9	32.3
Nonpublic	3.8	10.0	13.4
Current expenditure per pupil in average daily attendance in public elementary–secondary schools	**Dollars**		
	$419	$934	$1,303
Estimated average charges per full–time undergraduate degree–credit student:			
Tuition and required fees:			
Public	218	363	440
Private	906	1,765	1,327
Board:			
Public	423	551	551
Private	472	605	605
Dormitory room:			
Public	228	420	525
Private	288	505	634

[1] Projections are based on assumptions given in appendix A. Users should check the acceptability of these assumptions for their purposes.

[2] Population projections are based on Series D from the Bureau of the Census.

[3] Includes current expenditures, interest, and capital outlay.

NOTE.—Data are for the 50 States and the District of Columbia. Because of rounding, detail may not add to totals.

CHAPTER II
Enrollment

Martin M. Frankel

All levels (table 2)

Total fall enrollment (elementary, secondary, and higher education) increased from 47 million in 1961 to 60 million in 1971 and is expected to be 62 million in 1981. These totals include daytime enrollment in all regular public and nonpublic (parochial and nonsectarian) elementary and secondary schools, degree-credit enrollment in publicly and privately controlled institutions of higher education in programs leading to a bachelor's or higher degree, and non-degree-credit enrollment in programs that extend not more than 3 years beyond high school and are designed to prepare for a technical, semiprofessional, or craftsman-clerical position.

Excluded from the enrollments in institutions of higher education are adult education courses of regular length, short courses of any kind, and correspondence, television, or radio courses, some of which are degree-credit courses. Excluded from the enrollments in elementary and secondary schools are: (1) those in public and nonpublic subcollegiate, vocational, technical, and trade schools, unless these are a part of the regular school system; (2) enrollment in evening classes in regular public schools; and (3) enrollment in elementary and secondary grades in public and nonpublic residential schools for exceptional children, Federal schools for Indians, federally operated schools on Federal installations, and subcollegiate departments of public and nonpublic institutions of higher education. These enrollments also exclude children aged 3 to 6 years enrolled in independent public and nonpublic nursery schools and kindergartens (exclusively preprimary schools). However, estimates of the latter enrollment are shown in table 2 as a separate item.

The projection of fall enrollments shown in table 2 is based primarily on the following assumptions: (1) The percentages of school-age persons enrolling in school will continue the 1961 to 1971 trends, (2) the retention rates in public elementary and secondary schools will either remain constant at the 1970 to 1971 levels or follow the 1961 to 1971 trends, and (3) the series D school-age populations on which the projections are based will remain through 1981 substantially as now estimated and projected by the U.S. Bureau of the Census. These population bases are shown in appendix B, tables B–1 and B–2.

Elementary and secondary day schools (tables 3, 4)

Fall enrollment in regular elementary and secondary day schools (tables 3 and 4) increased from 43 million in 1961 to 51 million in 1971 and is expected to decrease to approximately 49 million in 1978 and then increase to 50 million in 1981. The 1971 enrollment excludes an estimated total of 300,000 enrolled in public and nonpublic schools such as residential schools for exceptional children, subcollegiate departments of public and nonpublic institutions of higher education, Federal schools for Indians, and federally operated schools on Federal installations. It also excludes an estimated 1.7 million between the ages of 3 and 6 years enrolled in independent nursery schools and kindergartens and an estimated 1.5 million in "special" (mostly private business and trade) schools.

Enrollment in grades 9 through 12 is expected to increase by about 1 million between 1971 and 1975 and then begin to decrease as the children born after 1960, when births began to decline, progress through high school. Total enrollment in grades 9 through 12 rose from 10 million in 1961 to 15 million in 1971 and is expected to be 14 million in 1981.

Enrollment in kindergarten through grade 8 is expected to decrease by almost 3 million between 1971 and 1977 and then begin a slow upward climb as the increasing numbers of women in the child-bearing

[1] U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Characteristics, School Enrollment October 1969," Series P-20, No. 206, October 5, 1970.

ages offset the decreasing fertility rates. (The fertility rate is defined as the average number of children born per 1,000 women between the ages of 15 and 45 years.) The proportion of children of elementary school age who are enrolled in school is already so high (about 99 percent, if 5-year-olds are excluded) that any increase in enrollment rates for this age group will be minimal. Enrollment in kindergarten through grade 8 increased from 33 million in 1961 to 36 million in 1970 but is expected to be back to 33 million in 1977 before increasing again to 36 million in 1981.

Enrollment in schools organized as secondary (see appendix A, "Glossary," for definition of elementary and secondary schools) increased from 14 million in 1961 to nearly 20 million in 1970 and is expected to decrease to about 18 million in 1981. The enrollment in secondary schools is larger than the enrollment in grades 9 through 12 as shown in tables 3 and 4 because it includes all of the grade 9 through 12 enrollment as well as the enrollment in grades 7 and 8 in junior high schools. It may be even higher than it appears to be in table 4 because some State departments of education report only by grade even though some of their schools are organized on an elementary and secondary basis. In recent years, an increasing number of States have reported in this manner; and, therefore, the elementary-secondary breakdown should be used with some reservations.

The reported enrollment in elementary schools is smaller than that in kindergarten through grade 8 (tables 3 and 4) because it excludes enrollment in grades 7 and 8 in junior high schools. The reported enrollment in elementary schools increased from 29 million in 1961 to nearly 32 million in 1971 but is expected to decrease to 29 million in 1976 and then increase to nearly 32 million by 1981.

Public school enrollment (tables 3, 4)

Projections of enrollment in regular public day schools are shown in table 3 by grade group and in table 4 by organizational level.

The public school enrollment by grade was projected for each grade separately and then summed to obtain the projections by grade group. The projections by grade were derived (1) by applying projected age-specific enrollment rates to 5- and 6-year-olds (Bureau of the Census population series D) and (2) by applying projected grade-retention rates to children in grades 1 through 11.

It should be noted that children entering kindergarten through fall 1976 and 1st grade through fall 1977 are already born, and thus the number is not dependent on assumed fertility rates. By 1981, the last year shown in the tables, only projections of kindergarten through grade 5 depend on assumed fertility rates. For an explanation of the fertility rates used by the Bureau of the Census for projecting series D population, see appendix B, table B–1 footnotes.

The enrollment in regular public day schools by organizational level was derived by assuming that the percentages of the 7th- and 8th-grade enrollment organized as secondary school enrollment will remain constant at the 1971 level.

For a more detailed description of the assumptions and methods used in projecting public school enrollment, see footnotes to tables 3 and 4 and appendix A, table A–1.

Nonpublic school enrollment (tables 3, 4)

About 10 percent of regular day school enrollment (K–12) are now in nonpublic schools, mostly (about 80 percent) in Catholic schools. Primarily due to fiscal difficulties, the enrollment in Catholic schools has been declining and is expected to continue to decline.

Because of the decreases in Catholic enrollment and because of the limited data available on other nonpublic school enrollment, the projection of nonpublic school enrollment by conventional trend methods is not feasible. The projections by grade group included in table 3 are, therefore, estimates based on the limited information available to the Office of Education at this time. (Enrollments lost by the nonpublic schools will be shifted to the public schools, so the projected total public and nonpublic enrollment should not be affected.)

The enrollments in nonpublic schools by organizational level shown in table 4 are the same as those by grade group shown in table 3 because almost all the nonpublic school 7th- and 8th-graders in the past have been in the elementary schools.

Institutions of higher education (table 5)

Fall enrollment in both 4-year and 2-year institutions of higher education includes resident and extension, day and evening, full-time and part-time students who are (1) taking work creditable toward a bachelor's or

higher degree or (2) in occupational or general studies programs not chiefly creditable toward a bachelor's degree but preparing for a technical, semiprofessional, or craftsman-clerical position. The total enrollment increased from 4.0 million in 1961 to 8.9 million in 1971 and is expected to be 12.5 million in 1981. In 1981, almost 11 percent of this enrollment is expected to be in occupational or general studies, compared to about 9 percent in 1971 and less than 5 percent in 1961.

Degree-credit enrollment (tables 6–8, 13)

Opening fall enrollment reported in courses creditable toward a bachelor's or higher degree increased less than 200,000 from 1970 to 1971. This was a smaller increase than for any year during the 1960's.

Reflecting this small increase and the leveling off of the 18–21-year-old population, degree-credit enrollment is expected to increase by 3 million students from 8.1 million in 1971 to 11.1 million in 1981. This is compared to a growth of over 4 million students from 3.9 million in 1961 to 8.1 million in 1971.

During the next decade, almost all of the expected 3.0 million increase in enrollment will be in public institutions, and women will account for over one-half of enrollment increases.

Of the 11.1 million students expected to be taking work toward a bachelor's or higher degree in 1981, 1.2 million, or 11 percent, are expected to be taking graduate work beyond the bachelor's or first-professional level. Of the 9.9 million taking work creditable toward undergraduate or first-professional degrees, about 23 percent will be entering college for the first time (see p. 34 and table 13).

Projected totals of opening fall degree-credit enrollment by sex and attendance status and by control of institution attended are shown in table 6 for all institutions of higher education, in table 7 for 4-year institutions, and in table 8 for 2-year institutions. The projections were made separately for men and women by type and control of institution attended and summed to get the totals shown in the tables. The projections are based primarily on the assumption that the percentage of college-age people enrolled in college in each of the aforementioned enrollment categories will continue to increase from 1971 to 1981 as it did from 1961 to 1971. Attendance status was projected separately in each enrollment category and for graduate and undergraduate enrollment, based on the assumption that the percentage of full-time enrollment in each enrollment category will remain constant at the 1971 level.

Non-degree-credit enrollment (9–11)

Opening fall enrollment reported in non-degree-credit courses (occupational or general studies program) in all institutions of higher education increased 172,000 from 661,000 in 1970 to 833,000 in 1971. This was by far the largest increase ever recorded in a single year for non-degree-credit enrollment.

However, the data on non-degree-credit enrollment are suspect since it is often difficult for colleges to differentiate between a degree-credit and a non-degree-credit student. Also, some States require that anyone taking some credits that are transferable to a degree program be classified as a degree-credit student. These inconsistencies in reporting non-degree-credit enrollment should be considered when using either degree-credit or non-degree-credit enrollment data and projections. Shifts in degree-credit status are small relative to degree-credit enrollment, but they are quite significant when compared to non-degree-credit enrollment. Therefore, it is possible that some of the very large increase in non-degree-credit enrollment from 1970 to 1971 is attributable to reporting inconsistencies. However, non-degree-credit enrollment is undoubtedly increasing, and it is expected to rise to over 1.4 million in 1981.

Almost all of the expected nearly 600,000 increase over the next 10 years will be in public 2-year institutions, which accounted for almost 90 percent of non-degree-credit enrollment in 1971. Men will account for almost 60 percent of the expected non-degree-credit enrollment increase, in contrast to degree-credit enrollment where women will account for over 50 percent of the expected enrollment increase.

The projection of non-degree-credit enrollment is based on the assumption that, within the categories of sex of student and control and type of institution, non-degree-credit enrollment expressed as a percentage of the population 18–21 years of age will follow the 1961 to 1971 trends. Full-time attendance status was projected by holding constant to 1981 the percentage of non-degree-credit enrollment that was full time in 1971.

Full-time-equivalent enrollment (table 12)

Estimated full-time-equivalent opening fall enrollment in degree-credit and non-degree-credit courses increased from 3.2 million in 1961 to 7.0 million in 1971 and is expected to be 9.6 million in 1981. Of this

enrollment, 74 percent was in publicly controlled institutions in 1971, and 81 percent is expected to be in publicly controlled institutions in 1981. Ninety-one percent of the 1981 full-time-equivalent enrollment is expected to be in degree-credit courses.

The estimates of full-time-equivalent degree-credit enrollment is based on 33 percent of part-time degree-credit enrollment plus full-time degree-credit enrollment. Full-time-equivalent non-degree-credit enrollment is based on 28 percent of part-time non-degree-credit enrollment plus full-time non-degree-credit enrollment. These percentages for converting part-time enrollment to the full-time equivalent of part-time enrollment were taken from the 1964 sample survey of full-time-equivalent enrollment and credit hours.

First-time degree-credit enrollment (tables 13–16)

First-time opening fall degree-credit enrollment decreased almost 15,000 from 1970 to 1971. Reflecting this drop and the leveling off of the average 18-year-old population (table B–2), first-time degree-credit enrollment is expected to increase 28 percent from 1.8 million in 1971 to 2.3 million in 1981. From 1961 to 1971 the increase was 73 percent from 1.0 million to 1.8 million.

In 1961, 64 percent of the enrollment was in public institutions. In 1971 the percentage jumped to over 75 percent, and it is expected to be 83 percent in 1981. Of the expected 600,000 increase over the next 10 years, women are expected to account for 56 percent.

Projected first-time degree-credit enrollment in all institutions of higher education is shown in table 14. It is based primarily on the assumption that first-time enrollment by sex and by control and type of institution, as a percentage of the population averaging 18 years of age, will continue the 1961 to 1971 trends. The projections are shown separately for 4-year and 2-year institutions in tables 15 and 16.

Resident graduate enrollment (table 17)

Resident graduate enrollment showed only a slight increase from 1970 to 1971. From 1961 to 1971, this enrollment increased by over 500,000 students from an estimated 386,000 to 908,000. During the next 10 years, the rate of growth of resident graduate enrollment is expected to slow down, and the number of resident graduate students is expected to increase less than 300,000 students to nearly 1.2 million.

Reflecting the overall trends in degree-credit enrollment, almost all of the expected 300,000 increase will be in public institutions, and women will account for over 60 percent of the increase. These estimates and projections are confined to resident graduate students because no separate data on extension graduate students were available until 1969.

Extension graduate students are included with resident and extension undergraduate and first professional students in tables 18 and 19. In 1969, 1970, and 1971, the years that data on extension graduate students were collected, there were approximately 127,000, 139,000, and 104,000 extension graduate students, respectively. The estimates of resident graduate enrollment through 1968 were derived from several sources, principally the comprehensive surveys of 1961, 1963, and 1967 and the opening fall enrollment surveys of 1966 through 1969. The full-time and part-time attendance status estimates for 1967 were based on the unpublished 1967 comprehensive survey of enrollment and the 1967 opening fall survey of enrollment. For a detailed statement of the methods used in estimating graduate enrollment, see appendix A "Estimation Methods," sections 3a, 3b, 3h, and 3g.

The projection of graduate enrollment was based on the assumption that the trends shown from 1961 to 1971 for estimated resident graduate enrollment as a percentage of all degree-credit enrollment in 4-year institutions will continue to 1981. It is assumed that full-time graduate enrollment as a percentage of all graduate enrollment will remain constant at the 1971 level.

Undergraduate and first-professional enrollment (tables 18, 19)

Undergraduate and first-professional enrollment in 4-year institutions was estimated by subtracting estimated resident graduate enrollment from the estimated total of opening fall degree-credit resident and extension enrollment in these institutions.

Estimated undergraduate and first-professional enrollment (table 19) in 4-year institutions rose from 3.0 million in 1961 to 5.5 million in 1971 and, on the basis of the 1961 to 1971 trend, is expected to be 6.9 million in 1981. Undergraduate enrollment in 2-year institutions (table 8) more than tripled from 1961 to 1971 (0.5 million to 1.7 million), and is expected to reach 3.0 million by 1981.

Table 2.—Summary of enrollment in educational institutions, by institutional level and control: United States, fall 1961 to 1981

[In thousands]

Year (fall)	Total enrollment (excluding independent nursery schools)			Institutions of higher education[1]		Regular elementary and secondary day schools[2]				Estimated independent nursery schools and kindergartens[3]	
						Grades K–8		Grades 9–12			
	Total	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1961	47,411	39,933	7,478	2,469	1,578	28,095	4,800	9,369	1,100		
1962	49,253	41,502	7,751	2,753	1,651	28,637	4,900	10,112	1,200		
1963	51,253	43,253	8,000	3,066	1,700	29,304	5,000	10,883	1,300		
1964	52,996	44,884	8,112	3,468	1,812	30,025	5,000	11,391	1,300	236	649
1965	54,394	46,143	8,251	3,970	1,951	30,563	4,900	11,610	1,400	305	799
1966	55,629	47,388	8,241	4,349	2,041	31,145	4,800	11,894	1,400	374	842
1967	56,803	48,707	8,096	4,816	2,096	31,641	4,600	12,250	1,400	467	897
1968	58,257	50,375	7,882	5,431	2,082	32,226	4,400	12,718	1,400	437	920
1969	59,124	51,516	7,608	5,897	2,108	32,597	4,200	13,022	1,300	326	1,023
1970	59,890	52,337	7,553	6,428	2,153	32,577	4,100	13,332	1,300	423	1,113
1971	60,229	52,885	7,344	6,804	2,144	32,265	3,900	13,816	1,300	524	1,147
PROJECTED[4]											
1972	60,124	52,886	7,238	[5] 6,986	[5] 2,138	31,800	3,800	14,100	1,300	569	1,228
1973	60,375	53,203	7,172	7,503	2,172	31,300	3,700	14,400	1,300	630	1,333
1974	60,416	53,325	7,091	7,925	2,191	30,800	3,600	14,600	1,300	676	1,452
1975	60,362	53,452	6,910	8,352	2,210	30,400	3,400	14,700	1,300	778	1,616
1976	60,377	53,554	6,823	8,754	2,223	30,100	3,300	14,700	1,300	839	1,757
1977	60,568	53,836	6,732	9,136	2,232	30,100	3,200	14,600	1,300	921	1,903
1978	60,821	54,185	6,636	9,485	2,236	30,300	3,100	14,400	1,300	1,001	2,052
1979	61,123	54,590	6,533	9,790	2,233	30,800	3,000	14,000	1,300	1,081	2,206
1980	61,593	55,066	6,527	10,066	2,227	31,500	3,000	13,500	1,300	1,163	2,354
1981	62,332	55,815	6,517	10,315	2,217	32,500	3,000	13,000	1,300	1,242	2,511

[1] Includes degree-credit and non-degree-credit enrollment.

[2] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and federally operated schools on Federal installations.

[3] Estimates of independent nursery school and kindergarten enrollments are based on the difference between all nursery school and kindergarten enrollments of children aged 3, 4, 5, and 6 years, as reported by the Bureau of the Census, and nursery school and kindergarten enrollments reported by the regular public and private schools.

[4] For assumptions on which projections of elementary, secondary, and higher education enrollments are based and for projection methods used, see footnotes to tables 3, 6, and 9, and methodology in appendix A, table A–1.

The projections of enrollments in independent nursery schools and kindergartens are based on the following assumptions: (1) Enrollments in all nursery schools and kindergartens of children aged 3, 4, 5, and 6 years will follow the 1964–71 trends of enrollment in these schools at each age level as a percentage of the total population of that age; and (2) enrollments in independent nursery schools and kindergartens of children aged 3, 4, 5, and 6 years will be the difference between enrollment in all nursery schools and kindergartens, as reported by the Census Bureau, and enrollment in nursery schools and kindergartens reported by regular public and private schools.

For further methodological details, see appendix A, table A–1.

[5] Based on preliminary National Center for Educational Statistics data. Not used to determine trend line, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Nursery school and kindergarten enrollment data are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Enrollment of 3-, 4-, and 5-Year-Olds in Nursery Schools and Kindergartens: October 1964*; (2) *Nursery-Kindergarten Enrollment of Children under Six, October 1964 through 1966*; (3) *Preprimary Enrollment of Children under Six, October 1967 and 1968*; and (3) *Preprimary Enrollment, October 1969 through 1971*.

Table 3.—Enrollment in grades K–8 and 9–12 of regular day schools, by institutional control: United States, fall 1961 to 1981 [1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated) [2]		
	K–12	K–8	9–12	K–12	K–8 [3]	9–12 [3]	K–12	K–8	9–12 [4]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1961	43,164	32,695	10,469	37,464	28,095	9,369	5,700	4,600	[5] 1,100
1962	44,849	33,537	11,312	38,749	28,637	10,112	6,100	4,900	1,200
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	[5] 1,300
1964	47,716	35,025	12,691	41,416	30,025	11,391	6,300	5,000	[5] 1,300
1965	48,473	35,463	13,010	42,173	30,563	11,610	6,300	[5] 4,900	[5] 1,400
1966	49,239	35,945	13,294	43,039	31,145	11,894	6,200	4,800	1,400
1967	49,891	36,241	13,650	43,891	31,641	12,250	6,000	4,600	1,400
1968	50,744	36,626	14,118	44,944	32,226	12,718	5,800	[5] 4,400	[5] 1,400
1969	51,119	36,797	14,322	45,619	32,597	13,022	5,500	4,200	1,300
1970	51,309	36,677	14,632	45,909	32,577	13,332	5,400	[6] 4,100	[6] 1,300
1971	51,281	36,165	15,116	46,081	32,265	13,816	5,200	3,900	1,300
	PROJECTED [7]								
1972	51,100	35,600	15,400	46,000	31,800	14,100	5,100	3,800	1,300
1973	50,700	35,000	15,700	45,700	31,300	14,400	5,000	3,700	1,300
1974	50,300	34,400	15,900	45,400	30,800	14,600	4,900	3,600	1,300
1975	49,800	33,800	16,000	45,100	30,400	14,700	4,700	3,400	1,300
1976	49,400	33,400	16,000	44,800	30,100	14,700	4,600	3,300	1,300
1977	49,200	33,300	15,900	44,700	30,100	14,600	4,500	3,200	1,300
1978	49,100	33,400	15,700	44,700	30,300	14,400	4,400	3,100	1,300
1979	49,100	33,800	15,300	44,800	30,800	14,000	4,300	3,000	1,300
1980	49,300	34,500	14,800	45,000	31,500	13,500	4,300	3,000	1,300
1981	49,800	35,500	14,300	45,500	32,500	13,000	4,300	3,000	1,300

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Estimated unless otherwise noted. Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Fall enrollment in public schools not reported by grade in 1961; grade breakdown for 1961 estimated from school year enrollment.

[4] Includes some pupils enrolled in grades 7 and 8 of nonpublic secondary schools in 1965 through 1968.

[5] Reported data from Office of Education surveys.

[6] Estimates are based on reported data from the Office of Education and the National Catholic Education Association.

[7] The projection of fall enrollment in regular day schools is based on the following assumptions: (1) Enrollment rates of the 5- and 6-year-old population in public school kindergarten and grade 1 will follow the 1961–71 trends; (2) the public school enrollment in grade 7 in a given year t will exceed the public school enrollment in grade 6 in year t–1 by 3.3 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1; (3) the public school enrollment in grade 9 in year t will exceed the public school enrollment in grade 8 in year t–1 by 5.3 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1; (4) the retention rate of public school grade 10 from grade 9 will follow the 1961–71 trend with the restriction that it cannot exceed 100 percent; (5) the retention rates of all other public school grades will remain constant at the 1970 to 1971 levels; (6) enrollments in grades K–8 in Catholic elementary schools will decrease from 3.1 million in 1971 to 2.0 million in 1981; and (6) enrollments in grades K–8 in all regular nonpublic day schools will decrease through 1981, and grades 9–12 in these schools will remain constant at the 1970 level.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education publications: (a) *Statistics of Public Schools*, fall 1964 through 1971; (b) *Enrollment, Teachers, and Schoolhousing*, fall 1961 through 1963; (c) *Statistics of State School Systems, 1961–62*; (d) prepublication data from *Statistics of Nonpublic Elementary and Secondary*

Schools, 1970–71; (e) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69;* (f) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66;* (g) *Nonpublic School Enrollment in Grades 9–12, Fall 1964, and Graduates, 1963–64;* (h) *Statistics of Nonpublic Elementary Schools, 1961–62;* (i) *Statistics of Nonpublic Secondary Schools, 1960–61;* and (2) National Catholic Educational Association publication: *A Report on U.S. Catholic Schools, 1970–71,* and prepublication data, 1971–72.

The population projections as of October 1, of 5- and 6-year-olds on which the enrollment projections in kindergarten and grade 1 are based, are consistent with series D population projections in U.S. Department of Commerce, Bureau of the Census, *Current Population Reports,* Series P–25, No. 470, November 1971. The C, D, and E population projections, together with definitions of each series, are shown in appendix B, table B–1.

For enrollment projections based on population projection series C and series E, see appendix B, tables B–3 and B–4.

Table 4.—Enrollment in regular day schools, by institutional control and organizational level: United States, fall 1961 to 1981 [1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K–12	Elementary	Secondary	K–12	Elementary	Secondary	K–12	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1961	43,164	29,203	13,961	37,464	24,603	12,861	5,700	4,600	[3] 1,100
1962	44,849	30,164	14,685	38,749	25,264	13,485	6,100	4,900	1,200
1963	46,487	30,775	15,712	40,187	25,775	14,412	6,300	5,000	[3] 1,300
1964	47,716	31,221	16,495	41,416	26,221	15,195	6,300	5,000	[3] 1,300
1965	48,473	31,570	16,904	42,173	26,670	15,504	6,300	[3] 4,900	[3] 1,400
1966	49,239	31,905	17,334	43,039	27,105	15,934	6,200	4,800	1,400
1967	49,891	31,972	17,919	43,891	27,372	16,519	6,000	4,600	1,400
1968	50,744	31,763	18,981	44,944	27,363	17,581	5,800	[3] 4,400	[3] 1,400
1969	51,119	31,655	19,463	45,619	27,455	18,163	5,500	4,200	1,300
1970	51,309	31,601	19,708	45,909	27,501	18,408	5,400	[4] 4,100	[4] 1,300
1971	51,281	31,588	19,693	46,081	27,688	18,393	5,200	3,900	1,300
	PROJECTED [5]								
1972	51,100	31,000	20,100	46,000	27,200	18,800	5,100	3,800	1,300
1973	50,700	30,400	20,400	45,700	26,700	19,100	5,000	3,700	1,300
1974	50,300	29,800	20,500	45,400	26,200	19,200	4,900	3,600	1,300
1975	49,800	29,200	20,500	45,100	25,800	19,200	4,700	3,400	1,300
1976	49,400	29,000	20,500	44,800	25,700	19,200	4,600	3,300	1,300
1977	49,200	29,000	20,200	44,700	25,800	18,900	4,500	3,200	1,300
1978	49,100	29,300	19,800	44,700	26,200	18,500	4,400	3,100	1,300
1979	49,100	29,800	19,200	44,800	26,800	17,900	4,300	3,000	1,300
1980	49,300	30,700	18,700	45,000	27,700	17,400	4,300	3,000	1,300
1981	49,800	31,600	18,200	45,500	28,600	16,900	4,300	3,000	1,300

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Estimated unless otherwise noted. Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Reported data from Office of Education surveys.

[4] Estimates based on reported data from the Office of Education and the National Catholic Educational Association.

[5] The projection of fall enrollment in regular public day schools by organizational level is based on the assumption that the percentage of enrollment in grades 7 and 8 that will be organized as elementary and as secondary enrollment will follow the 1961–71 trend.

The projection of regular fall enrollment in nonpublic schools by organizational level is based on the assumption that substantially all nonpublic enrollment in grades 7 and 8 will continue as elementary enrollment.

For further methodological details, see appendix A, table A–1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education publications: (a) *Statistics of Public Schools*, fall 1964 through 1971; (b) *Enrollment, Teachers, and Schoolhousing*, fall 1961 through 1963; (c) *Statistics of State School Systems, 1961–62*; (d) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*; (e) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69*; (f) *Statistics*

of Nonpublic Elementary and Secondary Schools, 1965–66; (g) *Nonpublic School Enrollment in Grades 9–12, Fall 1964, and Graduates, 1963–64;* (h) *Statistics of Nonpublic Elementary Schools, 1961–62;* (i) *Statistics of Nonpublic Secondary Schools, 1960–61;* and (2) National Catholic Educational Association publication: *A Report on U.S. Catholic Schools, 1970–71,* and prepublication data, 1971–72.

Table 5.—Summary of enrollment in all institutions of higher education, by degree-credit status and institutional type: United States, fall 1961 to 1981

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Total degree-credit and non-degree-credit enrollment	Degree-credit			Non-degree-credit		
		Total	4-year	2-year	Total	4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	4,047	3,861	3,343	518	186	38	148
1962	4,404	4,175	3,585	590	229	45	184
1963	4,766	4,495	3,870	625	271	52	220
1964	5,280	4,950	4,239	711	330	52	278
1965	5,921	5,526	4,685	841	395	63	332
1966 [1]	6,390	5,928	4,984	945	462	80	381
1967 [1]	6,912	6,406	5,325	1,081	505	73	432
1968	7,513	6,928	5,639	1,289	585	82	503
1969	8,005	7,484	5,956	1,528	521	72	448
1970	8,581	7,920	6,290	1,630	661	68	593
1971	8,949	8,116	6,391	1,725	833	72	761
		PROJECTED [2]					
1972 [3]	9,124	8,220	6,435	1,785	904	70	834
1973	9,675	8,707	6,728	1,979	968	73	895
1974	10,117	9,078	6,944	2,134	1,039	74	965
1975	10,562	9,452	7,161	2,291	1,110	74	1,036
1976	10,977	9,800	7,360	2,440	1,177	75	1,102
1977	11,369	10,128	7,549	2,579	1,241	75	1,166
1978	11,722	10,425	7,719	2,706	1,297	75	1,222
1979	12,023	10,678	7,864	2,814	1,345	75	1,270
1980	12,293	10,905	7,994	2,911	1,388	75	1,313
1981	12,532	11,108	8,110	2,998	1,424	74	1,350

[1] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sections 3d–3g.

[2] For assumptions underlying these projections and for methods of projecting, see footnotes to tables 6 and 9, and table A–1 in appendix A.

[3] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCE: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1960 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; (3) data from "Resident and Extension Enrollment in Institutions of Higher Education, Fall 1966" (unpublished); and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Table 6.—Total degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	3,860,643	2,408,601	1,452,042	2,714,000	1,147,000	2,328,912	1,531,731
1962	4,174,936	2,587,291	1,587,645	2,902,101	1,272,835	2,573,720	1,601,216
1963	4,494,626	2,772,562	1,722,064	3,068,469	1,426,157	2,848,454	1,646,172
1964	4,950,173	3,032,992	1,917,181	3,417,796	1,532,377	3,179,527	1,770,646
1965	5,526,325	3,374,603	2,151,722	3,909,987	1,616,338	3,624,442	1,901,883
1966[2]	5,928,000	3,577,000	2,351,000	4,225,000	1,703,000	3,940,000	1,988,000
1967[2]	6,406,000	3,822,000	2,584,000	4,556,000	1,850,000	4,360,000	2,046,000
1968	6,928,115	4,119,002	2,809,113	4,937,193	1,990,922	4,891,743	2,036,372
1969	7,484,073	4,419,147	3,064,926	5,253,755	2,230,318	5,414,934	2,069,139
1970	7,920,149	4,636,641	3,283,508	5,489,033	2,431,116	5,800,089	2,120,060
1971	8,116,104	4,717,099	3,399,005	5,676,487	2,439,617	6,013,934	2,102,170
	PROJECTED[3]						
1972[4]	8,220,000	4,739,000	3,481,000	5,707,000	2,513,000	6,120,000	2,100,000
1973	8,707,000	4,972,000	3,735,000	6,023,000	2,684,000	6,579,000	2,128,000
1974	9,078,000	5,133,000	3,945,000	6,260,000	2,818,000	6,932,000	2,146,000
1975	9,452,000	5,294,000	4,158,000	6,497,000	2,955,000	7,288,000	2,164,000
1976	9,800,000	5,451,000	4,349,000	6,719,000	3,081,000	7,624,000	2,176,000
1977	10,128,000	5,601,000	4,527,000	6,925,000	3,203,000	7,943,000	2,185,000
1978	10,425,000	5,744,000	4,681,000	7,114,000	3,311,000	8,236,000	2,189,000
1979	10,678,000	5,876,000	4,802,000	7,273,000	3,405,000	8,492,000	2,186,000
1980	10,905,000	6,002,000	4,903,000	7,415,000	3,490,000	8,725,000	2,180,000
1981	11,108,000	6,123,000	4,985,000	7,542,000	3,566,000	8,937,000	2,171,000

[1] Estimated for 1961. See appendix A, "Estimation Methods," section 3a.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sections 3d and 3f.

These estimates differ from the estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment and of revisions in the 1966 comprehensive data for 4-year institutions.

[3] The projection of total degree-credit enrollment in all institutions by sex and institutional control is based primarily on the assumption that enrollment in these institutions, expressed as a percentage of population aged 18–21 years, will follow the 1961–71 trend to 1981 in each enrollment category.

The projection of total degree-credit enrollment in all institutions by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1971 opening fall enrollment survey, with minor adjustments, will remain constant to 1981.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A–1.

[4] Based on preliminary National Center for Educational Statistics data. Not used to determine trend line, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years (to obtain projections for the United States and outlying areas, multiply each projection in this table by 1.011). Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Educa-

tion publications: (1) *Opening (Fall) Enrollment in Higher Education,* annually, 1961 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information, 1969* and *1970;* (3) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education, Fall 1966 and 1967"; and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961.*

Population on which projections are based is shown in appendix B, table B–2.

Table 7.—Total degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	3,342,718	2,088,445	1,254,273	2,421,000	922,000	1,872,531	1,470,187
1962	3,585,407	2,221,667	1,363,740	2,584,908	1,000,499	2,054,463	1,530,944
1963	3,869,837	2,385,902	1,483,935	2,741,251	1,128,586	2,297,146	1,572,691
1964	4,239,305	2,593,483	1,645,822	3,021,411	1,217,894	2,558,668	1,680,637
1965	4,684,888	2,852,757	1,832,131	3,414,535	1,270,353	2,886,552	1,798,336
1966[2]	4,984,000	3,000,000	1,984,000	3,662,000	1,322,000	3,100,000	1,883,000
1967[2]	5,325,000	3,170,000	2,155,000	3,940,000	1,385,000	3,393,000	1,933,000
1968	5,638,616	3,336,709	2,301,907	4,198,486	1,440,130	3,722,602	1,916,014
1969	5,955,644	3,508,516	2,447,128	4,404,620	1,551,024	4,002,324	1,953,320
1970	6,290,167	3,682,680	2,607,487	4,613,188	1,676,979	4,280,327	2,009,840
1971	6,390,783	3,713,927	2,676,856	4,746,401	1,644,382	4,391,228	1,999,555
	PROJECTED[3]						
1972[4]	6,435,000	3,704,000	2,731,000	4,755,000	1,680,000	4,435,000	2,000,000
1973	6,728,000	3,825,000	2,903,000	4,969,000	1,759,000	4,700,000	2,028,000
1974	6,944,000	3,897,000	3,047,000	5,126,000	1,818,000	4,898,000	2,046,000
1975	7,161,000	3,968,000	3,193,000	5,281,000	1,880,000	5,097,000	2,064,000
1976	7,360,000	4,039,000	3,321,000	5,426,000	1,934,000	5,284,000	2,076,000
1977	7,549,000	4,110,000	3,439,000	5,561,000	1,988,000	5,464,000	2,085,000
1978	7,719,000	4,181,000	3,538,000	5,684,000	2,035,000	5,630,000	2,089,000
1979	7,864,000	4,253,000	3,611,000	5,787,000	2,077,000	5,778,000	2,086,000
1980	7,994,000	4,324,000	3,670,000	5,879,000	2,115,000	5,914,000	2,080,000
1981	8,110,000	4,395,000	3,715,000	5,961,000	2,149,000	6,039,000	2,071,000

[1] Estimated for 1961. See appendix A, "Estimation Methods," section 3a.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sections 3d and 3f.

These estimates differ from the estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment and of revisions in the 1966 comprehensive data for 4-year institutions.

[3] The projection of total degree-credit enrollment in 4-year institutions by sex and institutional control is based primarily on the assumption that enrollment in these institutions, expressed as a percentage of population aged 18–21 years, will follow the 1961–71 trend to 1981 in each enrollment category.

The projection of total degree-credit enrollment in 4-year institutions by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1971 opening fall enrollment survey, with minor adjustments, will remain constant to 1981.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A–1.

[4] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education,* annually, 1961 through 1968, and 1971; (2) *Fall*

Enrollment in Higher Education, Supplementary Information, 1969 and 1970; (3) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education, Fall 1966 and 1967"; and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B–2.

Table 8.—Total degree-credit enrollment in 2-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	517,925	320,156	197,769	293,000	225,000	456,381	61,544
1962	589,529	365,624	223,905	317,193	272,336	519,257	70,272
1963	624,789	386,660	238,129	327,218	297,571	551,308	73,481
1964	710,868	439,509	271,359	396,385	314,483	620,859	90,009
1965	841,437	521,846	319,591	495,452	345,985	737,890	103,547
1966[2]	945,000	577,000	367,000	563,000	381,000	840,000	105,000
1967[2]	1,081,000	652,000	429,000	616,000	465,000	968,000	113,000
1968	1,289,499	782,293	507,206	738,707	550,792	1,169,141	120,358
1969	1,528,429	910,631	617,798	849,135	679,294	1,412,610	115,819
1970	1,629,982	953,961	676,021	875,845	754,137	1,519,762	110,220
1971	1,725,321	1,003,172	722,149	930,086	795,235	1,622,706	102,615
	PROJECTED[3]						
1972[4]	1,785,000	1,035,000	750,000	952,000	833,000	1,685,000	100,000
1973	1,979,000	1,147,000	832,000	1,054,000	925,000	1,879,000	100,000
1974	2,134,000	1,236,000	898,000	1,134,000	1,000,000	2,034,000	100,000
1975	2,291,000	1,326,000	965,000	1,216,000	1,075,000	2,191,000	100,000
1976	2,440,000	1,412,000	1,028,000	1,293,000	1,147,000	2,340,000	100,000
1977	2,579,000	1,491,000	1,088,000	1,364,000	1,215,000	2,479,000	100,000
1978	2,706,000	1,563,000	1,143,000	1,430,000	1,276,000	2,606,000	100,000
1979	2,814,000	1,623,000	1,191,000	1,486,000	1,328,000	2,714,000	100,000
1980	2,911,000	1,678,000	1,233,000	1,536,000	1,375,000	2,811,000	100,000
1981	2,998,000	1,728,000	1,270,000	1,581,000	1,417,000	2,898,000	100,000

[1] Estimated for 1961. See appendix A, "Estimation Methods," section 3a.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sections 3d and 3f.

The estimates for 1967 differ from the estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment.

[3] The projection of total degree-credit enrollment in 2-year institutions by sex and institutional control is based primarily on the assumption that enrollment in these institutions, expressed as a percentage of population aged 18–21 years, will follow the 1961–71 trend to 1981 in each enrollment category.

The projection of total degree-credit enrollment in 2-year institutions by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1971 opening fall enrollment survey, with minor adjustments, will remain constant to 1981.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A–1.

[4] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE —Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education,* annually, 1961 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supple-*

mentary Information, 1969 and 1970; (3) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961.*

Population on which projections are based is shown in appendix B, table B–2.

Table 9.—Non-degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	186,483	128,363	58,120	76,000	111,000	140,579	45,904
1962	229,000	155,000	74,000	95,000	134,000	179,000	50,000
1963	271,241	182,655	88,586	115,000	156,000	217,394	53,847
1964	329,847	215,721	114,126	140,000	190,000	288,181	41,666
1965	394,539	255,417	139,122	172,000	222,000	345,154	49,385
1966[2]	462,000	279,000	183,000	213,000	249,000	409,000	53,000
1967[2]	505,000	311,000	194,000	236,000	269,000	455,000	49,000
1968	584,976	358,647	226,329	272,962	312,014	538,909	46,067
1969	520,587	327,054	193,533	245,128	275,459	481,934	38,653
1970	660,738	407,001	253,737	326,257	334,481	628,045	32,693
1971	832,541	489,906	342,635	400,746	431,795	790,375	42,166
				PROJECTED[3]			
1972[4]	904,000	533,000	372,000	434,000	470,000	866,000	38,000
1973	968,000	570,000	398,000	465,000	503,000	924,000	44,000
1974	1,039,000	612,000	427,000	498,000	541,000	993,000	45,000
1975	1,110,000	655,000	455,000	531,000	579,000	1,064,000	46,000
1976	1,177,000	694,000	482,000	563,000	614,000	1,130,000	47,000
1977	1,241,000	731,000	510,000	593,000	648,000	1,193,000	47,000
1978	1,297,000	763,000	533,000	619,000	678,000	1,249,000	47,000
1979	1,345,000	792,000	553,000	642,000	703,000	1,298,000	47,000
1980	1,388,000	817,000	570,000	662,000	726,000	1,341,000	47,000
1981	1,424,000	839,000	585,000	679,000	745,000	1,378,000	46,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," section 3m.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sections 3e and 3g.

These estimates differ from estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment and revisions in the 1966 comprehensive data for 4-year institutions.

[3] The projection of total non-degree-credit enrollment in all institutions by sex and institutional control is based primarily on the assumption that enrollment, expressed as a percentage of population aged 18–21 years, will follow the 1961–71 trend to 1981 in each enrollment category.

The projection of total non-degree-credit enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1971 opening fall enrollment survey, with minor adjustments, will remain constant to 1981.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A–1.

[4] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCE: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; (3) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Table 10.—Non-degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	38,002	28,136	9,866	13,000	25,000	25,400	12,602
1962	45,000	32,000	13,000	16,000	29,000	30,000	15,000
1963	51,518	36,492	15,026	19,000	32,000	33,673	17,845
1964	51,789	36,582	15,207	20,000	32,000	34,261	17,528
1965	63,024	43,624	19,400	25,000	38,000	41,780	21,244
1966[2]	80,000	47,000	33,000	39,000	41,000	59,000	21,000
1967[2]	73,000	48,000	26,000	32,000	41,000	51,000	22,000
1968	82,179	50,589	31,590	36,166	46,013	61,576	20,603
1969	72,358	46,974	25,384	37,171	35,187	47,820	24,538
1970	67,512	43,708	23,804	36,753	30,759	45,835	21,677
1971	71,951	43,920	28,031	40,284	31,667	47,214	24,737
	PROJECTED[3]						
1972[4]	70,000	44,000	27,000	39,000	31,000	48,000	22,000
1973	73,000	45,000	28,000	41,000	32,000	47,000	26,000
1974	74,000	46,000	28,000	41,000	33,000	47,000	27,000
1975	74,000	46,000	28,000	41,000	33,000	47,000	27,000
1976	75,000	46,000	28,000	42,000	33,000	47,000	28,000
1977	75,000	46,000	29,000	42,000	33,000	47,000	28,000
1978	75,000	46,000	29,000	42,000	33,000	47,000	28,000
1979	75,000	46,000	29,000	42,000	33,000	47,000	28,000
1980	75,000	46,000	28,000	42,000	33,000	47,000	28,000
1981	74,000	46,000	28,000	42,000	32,000	47,000	27,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," section 3m.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sections 3e and 3g.

These estimates differ from estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment and revisions in the 1966 comprehensive data for 4-year institutions.

[3] The projection of total non-degree-credit enrollment in 4-year institutions by sex and institutional control is based primarily on the assumption that enrollment, expressed as a percentage of population aged 18–21 years, will follow the 1961–71 trend to 1981 in each enrollment category.

The projection of total non-degree-credit enrollment in 4-year institutions by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1971 opening fall enrollment survey, with minor adjustments, will remain constant to 1981.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A–1.

[4] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; (3) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B–2.

Table 11.—Non-degree-credit enrollment in 2-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment	Sex		Attendance status [1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	148,481	100,227	48,254	62,000	86,000	115,179	33,302
1962	184,000	123,000	61,000	79,000	105,000	149,000	35,000
1963	219,723	146,163	73,560	96,000	124,000	183,721	36,002
1964	278,058	179,139	98,919	120,000	158,000	253,920	24,138
1965	331,515	211,793	119,722	147,000	184,000	303,374	28,141
1966 [2]	381,000	232,000	150,000	174,000	208,000	350,000	32,000
1967 [2]	432,000	263,000	168,000	204,000	228,000	404,000	27,000
1968	502,797	308,058	194,739	236,796	266,001	477,333	25,464
1969	448,229	280,080	168,149	207,957	240,272	434,114	14,115
1970	593,226	363,293	229,933	289,504	303,722	582,210	11,016
1971	760,590	445,986	314,604	360,462	400,128	743,161	17,429
	PROJECTED [3]						
1972 [4]	834,000	489,000	345,000	395,000	439,000	818,000	16,000
1973	895,000	525,000	370,000	424,000	471,000	877,000	18,000
1974	965,000	566,000	399,000	457,000	508,000	946,000	18,000
1975	1,036,000	609,000	427,000	490,000	546,000	1,017,000	19,000
1976	1,102,000	648,000	454,000	521,000	581,000	1,083,000	19,000
1977	1,166,000	685,000	481,000	551,000	615,000	1,146,000	19,000
1978	1,222,000	717,000	504,000	577,000	645,000	1,202,000	19,000
1979	1,270,000	746,000	524,000	600,000	670,000	1,251,000	19,000
1980	1,313,000	771,000	542,000	620,000	693,000	1,294,000	19,000
1981	1,350,000	793,000	557,000	637,000	713,000	1,331,000	19,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," section 3m.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sections 3e and 3g.

The estimates for 1967 differ from the estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment.

[3] The projection of total non-degree-credit enrollment in 2-year institutions by sex and institutional control is based primarily on the assumption that enrollment, expessed as a percentage of population aged 18–21 years, will follow the 1961–71 trend to 1981 in each enrollment category.

The projection of total non-degree-credit enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1971 opening fall enrollment survey, with minor adjustments, will remain constant to 1981.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A–1.

[4] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; (3) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B–1.

Table 12.—Estimated full-time-equivalent enrollment in all institutions of higher education, by degree-credit status and institutional control: United States, fall 1961 to 1981 [1]

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	All students			Students taking work creditable toward a bachelor's or higher degree			Students in occupational or general studies programs not chiefly creditable toward a bachelor's		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1961	3,200	1,949	1,251	3,092	1,868	1,224	108	81	27
1962	3,455	2,145	1,310	3,322	2,041	1,281	133	104	29
1963	3,696	2,351	1,345	3,539	2,225	1,314	157	126	31
1964	4,115	2,671	1,444	3,924	2,504	1,421	191	167	24
1965	4,671	3,094	1,577	4,443	2,895	1,548	228	199	29
1966	5,070	3,398	1,672	4,792	3,154	1,637	278	243	35
1967	5,480	3,761	1,719	5,168	3,482	1,686	312	279	33
1968	5,954	4,228	1,726	5,594	3,899	1,695	360	329	31
1969	6,319	4,564	1,755	5,997	4,268	1,729	322	296	26
1970	6,721	4,937	1,783	6,299	4,539	1,761	421	399	22
1971	7,003	5,218	1,785	6,482	4,727	1,755	521	491	30
	PROJECTED [1]								
1972 [2]	7,102	5,343	1,759	6,536	4,808	1,728	566	535	31
1973	7,515	5,712	1,803	6,909	5,138	1,771	606	574	32
1974	7,839	6,020	1,819	7,190	5,404	1,786	649	616	33
1975	8,166	6,332	1,834	7,472	5,671	1,801	694	661	33
1976	8,470	6,625	1,845	7,736	5,924	1,812	734	701	33
1977	8,756	6,903	1,853	7,982	6,163	1,819	774	740	34
1978	9,016	7,159	1,857	8,207	6,384	1,823	809	775	34
1979	9,236	7,382	1,854	8,397	6,577	1,820	839	805	34
1980	9,431	7,584	1,847	8,567	6,753	1,814	864	831	33
1981	9,606	7,767	1,839	8,719	6,913	1,806	887	854	33

[1] The estimation, 1961 to 1971, and the projection of the full-time equivalent of part-time enrollment are based on the assumption that the 1964 percentages of part-time enrollment equivalent to full-time enrollment (33 percent for degree-credit students and 28 percent for non-degree-credit students) have remained constant, 1961 to 1981.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A–1.

[2] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1961 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; (3) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*; and (5) Sample survey of full-time-equivalent enrollments and credit hours, fall 1964 (unpublished).

Table 13.—Summary of degree-credit enrollment in all institutions of higher education, by level and institutional type: United States, fall 1961 to 1981

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Total degree-credit enrollment	Level and type						
		Resident graduate (4-year)[1]	Undergraduate and first-professional (4-year)			Undergraduate (2-year)		
			Total[1]	First-time	Other[1]	Total	First-time	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1961	3,861	386	2,956	775	2,181	518	244	274
1962	4,175	422	3,163	770	2,393	590	260	329
1963	4,495	464	3,406	775	2,631	625	272	353
1964	4,950	540	3,699	903	2,797	711	322	389
1965	5,526	619	4,066	1,041	3,025	841	401	441
1966[2]	5,928	682	4,302	989	3,313	945	389	556
1967[2]	6,406	753	4,572	992	3,580	1,081	447	634
1968	6,928	796	4,842	1,076	3,766	1,289	554	735
1969	7,484	828	5,128	1,107	4,021	1,528	642	886
1970	7,920	900	5,390	1,126	4,264	1,630	654	976
1971	8,116	908	5,483	1,096	4,387	1,725	670	1,055
	PROJECTED[3]							
1972[4]	8,220	915	5,520	1,066	4,454	1,785	672	1,113
1973	8,707	958	5,770	1,131	4,639	1,979	745	1,234
1974	9,078	990	5,954	1,162	4,792	2,134	804	1,330
1975	9,452	1,022	6,139	1,186	4,953	2,291	855	1,436
1976	9,800	1,053	6,307	1,197	5,110	2,440	895	1,545
1977	10,128	1,084	6,465	1,209	5,256	2,579	933	1,646
1978	10,425	1,113	6,606	1,220	5,386	2,706	973	1,733
1979	10,678	1,140	6,724	1,226	5,498	2,814	1,006	1,808
1980	10,905	1,165	6,829	1,224	5,605	2,911	1,030	1,881
1981	11,108	1,189	6,921	1,218	5,703	2,998	1,050	1,948

[1] Estimated. See appendix A, "Estimation Methods," sections 3a, 3b, 3h, and 3j.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sections 3d and 3f.

[3] The projection of resident graduate enrollment in 4-year institutions was made separately by sex and by institutional control and is based primarily on the assumption that in each enrollment category the estimated proportion of total enrollment at the graduate level will continue the 1961–71 trend to 1981.

The projection of undergraduate and first-professional degree-credit enrollment in 4-year institutions is the difference between projected total degree-credit enrollment (resident and extension) in 4-year institutions shown in table 7 and resident graduate enrollment in 4-year institutions shown in table 17. Therefore, prior to 1969, the 1st year that extension graduate enrollment was reported, estimated and reported undergraduate and first-professional enrollment in 4-year institutions includes an unknown amount of extension graduate enrollment.

In 1969, 1970, and 1971 there were approximately 127,000, 139,000, and 104,000 extension graduate students, respectively.

The projection of undergraduate degree-credit enrollment in 2-year institutions of higher education is the same as that shown in table 8.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projection.

For further methodological details, see appendix A, table A–1.

[4] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1961 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; (3) *Residence and Migration of College Students, Fall 1968; Basic State-to-State Matrix Tables;* (4) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and fall 1967; and (5) *Resident and Extension Enrollment in Institutions of Higher Education*, biennially, 1961 and 1963.

Table 14.—First-time degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	1,018,361	591,913	426,448	840,000	178,000	648,236	370,125
1962	1,030,554	598,099	432,455	849,000	181,000	669,728	360,826
1963	1,046,417	604,282	442,135	864,000	182,000	686,861	359,556
1964	1,224,840	701,524	523,316	1,014,000	210,000	814,664	410,176
1965	1,441,822	829,215	612,607	1,192,000	250,000	990,021	451,801
1966[2]	1,378,000	787,000	591,000	1,140,000	238,000	947,000	430,000
1967[2]	1,439,000	814,000	626,000	1,182,000	257,000	1,024,000	415,000
1968	1,629,751	924,580	705,171	1,328,329	301,422	1,200,784	428,967
1969	1,748,655	985,719	762,936	1,404,508	344,147	1,309,359	439,296
1970	1,780,119	983,794	796,325	1,426,488	353,631	1,337,896	442,223
1971	1,765,625	967,859	797,766	1,411,032	354,593	1,339,177	426,448
	PROJECTED[3]						
1972[4]	1,738,000	947,000	791,000	1,383,000	355,000	1,321,000	417,000
1973	1,876,000	1,017,000	859,000	1,485,000	391,000	1,459,000	417,000
1974	1,966,000	1,062,000	904,000	1,548,000	418,000	1,554,000	412,000
1975	2,041,000	1,097,000	944,000	1,601,000	440,000	1,634,000	407,000
1976	2,092,000	1,118,000	974,000	1,633,000	459,000	1,689,000	403,000
1977	2,142,000	1,140,000	1,002,000	1,667,000	475,000	1,743,000	399,000
1978	2,193,000	1,162,000	1,031,000	1,701,000	492,000	1,799,000	394,000
1979	2,232,000	1,179,000	1,053,000	1,725,000	507,000	1,843,000	389,000
1980	2,254,000	1,187,000	1,067,000	1,737,000	517,000	1,869,000	385,000
1981	2,268,000	1,189,000	1,079,000	1,743,000	525,000	1,888,000	380,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," section 2b.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," section 2a.

[3] The projection of first-time opening fall degree-credit enrollment in all institutions of higher education by sex and by institutional control is based primarily on the assumption that first-time enrollment, expressed as a percentage of the population averaging 18 years of age, will follow the 1961–71 trend to 1981 in each category of enrollment.

The projection of first-time opening fall degree-credit enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1971 opening fall enrollment survey, with minor adjustments, will remain constant to 1981.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A–1.

[4] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education,* annually, 1961 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplemental Information,* 1969 and 1970; (3) data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 (unpublished); and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961.*

Population on which projections are based is shown in appendix B, table B–2.

Table 15.—First-time degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	774,584	446,248	328,336	681,000	93,000	438,135	336,449
1962	770,114	441,936	328,178	680,000	90,000	445,191	324,923
1963	774,744	441,220	333,524	687,000	88,000	452,104	322,640
1964	902,599	508,117	394,482	802,000	100,000	539,251	363,348
1965	1,041,025	587,789	453,236	929,000	112,000	642,233	398,792
1966[2]	989,000	555,000	434,000	884,000	105,000	610,000	379,000
1967[2]	992,000	548,000	444,000	889,000	103,000	628,000	364,000
1968	1,076,077	591,443	484,634	966,094	109,983	705,891	370,186
1969	1,107,116	608,089	499,027	994,586	112,530	721,963	385,153
1970	1,126,368	608,823	517,545	1,013,031	113,337	736,879	389,489
1971	1,095,547	585,393	510,154	991,521	104,026	719,405	376,142
	PROJECTED[3]						
1972[4]	1,066,000	567,000	499,000	965,000	101,000	696,000	370,000
1973	1,131,000	599,000	532,000	1,023,000	108,000	764,000	367,000
1974	1,162,000	614,000	548,000	1,051,000	111,000	800,000	362,000
1975	1,186,000	624,000	562,000	1,074,000	112,000	829,000	357,000
1976	1,197,000	627,000	570,000	1,083,000	114,000	844,000	353,000
1977	1,209,000	631,000	578,000	1,094,000	115,000	860,000	349,000
1978	1,220,000	634,000	586,000	1,104,000	116,000	876,000	344,000
1979	1,226,000	636,000	590,000	1,108,000	118,000	887,000	339,000
1980	1,224,000	633,000	591,000	1,106,000	118,000	889,000	335,000
1981	1,218,000	627,000	591,000	1,101,000	117,000	888,000	330,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," section 2b.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," section 2a.

[3] The projection of first-time opening fall degree-credit enrollment in 4-year institutions of higher education by sex and by institutional control is based primarily on the assumption that first-time enrollment, expressed as a percentage of the population averaging 18 years of age, will follow the 1961–71 trend to 1981 in each category of enrollment.

The projection of first-time opening fall degree-credit enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1971 opening fall enrollment survey, with minor adjustments, will remain constant to 1981.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A–1.

[4] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1961 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; (3) data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 (unpublished); and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B–2.

Table 16.—First-time degree-credit enrollment in 2-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981

[Resident and extension opening fall enrollment]

Year (fall)	Total first-time degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	243,777	145,665	98,112	159,000	85,000	210,101	33,676
1962	260,440	156,163	104,277	169,000	91,000	224,537	35,903
1963	271,673	163,062	108,611	178,000	94,000	234,757	36,916
1964	322,241	193,407	128,834	212,000	110,000	275,413	46,828
1965	400,797	241,426	159,371	263,000	138,000	347,788	53,009
1966[2]	389,000	232,000	157,000	255,000	134,000	337,000	51,000
1967[2]	447,000	266,000	181,000	292,000	155,000	396,000	51,000
1968	553,674	333,137	220,537	362,235	191,439	494,893	58,781
1969	641,539	377,630	263,909	409,922	231,617	487,396	54,143
1970	653,751	374,971	278,780	413,457	240,294	601,017	52,734
1971	670,078	382,466	287,612	419,511	250,567	619,772	50,306
	PROJECTED[3]						
1972[4]	672,000	380,000	292,000	418,000	254,000	625,000	47,000
1973	745,000	418,000	327,000	462,000	283,000	695,000	50,000
1974	804,000	448,000	356,000	497,000	307,000	754,000	50,000
1975	855,000	473,000	382,000	527,000	328,000	805,000	50,000
1976	895,000	491,000	404,000	550,000	345,000	845,000	50,000
1977	933,000	509,000	424,000	573,000	360,000	883,000	50,000
1978	973,000	528,000	445,000	597,000	376,000	923,000	50,000
1979	1,006,000	543,000	463,000	617,000	389,000	956,000	50,000
1980	1,030,000	554,000	476,000	631,000	399,000	980,000	50,000
1981	1,050,000	562,000	488,000	642,000	408,000	1,000,000	50,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," section 2b.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," section 2a.

[3] The projection of first-time opening fall degree-credit enrollment in 2-year institutions of higher education by sex and by institutional control is based primarily on the assumption that first-time enrollment, expressed as a percentage of the population averaging 18 years of age, will follow the 1961–71 trend to 1981 in each category of enrollment.

The projection of first-time opening fall degree-credit enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1971 opening fall enrollment survey, with minor adjustments, will remain constant to 1981.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projections.

For further methodological details, see appendix A, table A–1.

[4] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1961 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; (3) data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 (unpublished); and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B–2.

Table 17.—Resident graduate enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981 [1]

[In thousands]

Year (fall)	Total resident graduate degree-credit enrollment [2]	Sex		Attendance status [2]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	386	273	113	162	224	208	179
1962	422	298	124	177	245	234	189
1963	464	327	137	188	276	267	196
1964 [3]	540	373	167	221	319	317	223
1965 [3]	619	423	196	256	363	370	249
1966 [3]	682	458	224	285	397	411	271
1967 [3]	753	498	255	317	436	464	290
1968 [3]	797	514	283	342	455	505	292
1969	828	529	299	364	464	548	280
1970	900	569	331	379	521	606	294
1971	908	567	341	388	520	620	288
	PROJECTED [4]						
1972 [5]	915	566	349	390	525	632	283
1973	958	584	374	407	551	670	288
1974	990	595	395	419	571	701	289
1975	1,022	605	417	431	591	732	290
1976	1,053	616	437	444	609	763	290
1977	1,084	627	457	456	628	793	291
1978	1,113	637	476	467	646	821	292
1979	1,140	648	492	478	662	847	293
1980	1,165	659	506	487	678	871	294
1981	1,189	669	520	497	692	894	295

[1] Extension graduate students are included with resident and extension undergraduate and first-professional students in tables 18 and 19 because separate data on extension graduate students were not collected until 1969. In 1969, 1970, and 1971 there were approximately 127,000, 139,000, and 104,000 extension graduate students, respectively.

[2] For method of estimating total resident graduate enrollment and resident graduate enrollment by attendance status, 1961 to 1968, see appendix A, "Estimation Methods," sections 3a, 3b, 3h, and 3j.

[3] The estimates for 1964 to 1968 differ from estimates published in the 1969 and prior editions of *Projections of Educational Statistics* because they take into account (1) data on graduate enrollment available from the unpublished 1967 comprehensive survey of enrollment, (2) revisions in the 1966 comprehensive survey of enrollment data for 4-year institutions, and (3) data on graduate enrollment available from the 1969 supplementary survey.

[4] The projection of resident graduate enrollment by sex and by control of institution is based primarily on the assumption that in each enrollment category the estimated proportion of total enrollment at the graduate level will continue the 1961–71 trend to 1981.

The projection of resident graduate enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time graduate enrollment to total graduate enrollment reported in the 1971 opening fall enrollment survey, with minor adjustments, will remain constant to 1981.

Veterans attending college through aid provided by the Veterans' Readjustment Benefits Act of 1966 are included in the trend projection.

For further methodological details, see appendix A, table A–1.

[5] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health,

Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1961 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; (3) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961 and 1963;* and (5) *Residence and Migration of College Students*, fall 1968.

Table 18.—Undergraduate and first-professional degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981[1]

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Total undergraduate degree-credit enrollment	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	3,474	2,135	1,339	2,552	922	2,121	1,353
1962	3,753	2,290	1,463	2,725	1,028	2,340	1,413
1963	4,031	2,446	1,585	2,881	1,151	2,581	1,450
1964[2]	4,410	2,660	1,750	3,196	1,213	2,863	1,548
1965[2]	4,907	2,952	1,956	3,654	1,253	3,255	1,653
1966[2]	5,247	3,119	2,127	3,940	1,306	3,529	1,717
1967[2]	5,653	3,324	2,329	4,239	1,414	3,897	1,756
1968[2]	6,131	3,605	2,526	4,595	1,536	4,387	1,744
1969	6,656	3,890	2,766	4,890	1,766	4,867	1,789
1970	7,020	4,068	2,953	5,110	1,910	5,194	1,826
1971	7,208	4,150	3,058	5,289	1,920	5,393	1,815
	PROJECTED[1]						
1972[3]	7,305	4,174	3,131	5,317	1,988	5,504	1,801
1973	7,749	4,388	3,361	5,616	2,133	5,909	1,840
1974	8,088	4,538	3,550	5,841	2,247	6,231	1,857
1975	8,430	4,689	3,741	6,066	2,364	6,556	1,874
1976	8,747	4,835	3,912	6,275	2,472	6,861	1,886
1977	9,044	4,974	4,070	6,469	2,575	7,150	1,894
1978	9,312	5,107	4,205	6,647	2,665	7,415	1,897
1979	9,538	5,228	4,310	6,795	2,743	7,645	1,893
1980	9,740	5,343	4,397	6,928	2,812	7,854	1,886
1981	9,919	5,454	4,465	7,045	2,874	8,043	1,876

[1] The estimates for 1961 through 1968 and projections of undergraduate degree-credit enrollment in all institutions, by sex, attendance status, and institutional control, are calculated by summing the degree-credit enrollment in 2-year institutions (table 8) and corresponding categories of undergraduate degree-credit enrollment in 4-year institutions (table 19).

[2] The estimates for 1964 through 1968 differ from the estimates published in the 1969 and prior editions of *Projections of Educational Statistics* because they take into account (1) data on resident graduate enrollment available from the unpublished 1967 comprehensive survey of enrollment, (2) revisions in the 1966 comprehensive survey of enrollment data for 4-year institutions, and (3) data on graduate enrollment available from the 1969 supplementary survey.

For further methodological details, see appendix A, table A–1.

[3] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1961 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; (3) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961 and 1963*; and (5) *Residence and Migration of College Students*, fall 1968.

Table 19.—Undergraduate and first-professional degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1961 to 1981 [1]

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Total undergraduate degree-credit enrollment	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	2,956	1,815	1,141	2,258	699	1,665	1,291
1962	3,163	1,924	1,239	2,408	755	1,821	1,342
1963	3,406	2,059	1,347	2,553	853	2,030	1,377
1964 [2]	3,699	2,220	1,479	2,800	899	2,242	1,458
1965 [2]	4,066	2,430	1,636	3,159	907	2,517	1,549
1966 [2]	4,302	2,542	1,760	3,377	925	2,689	1,612
1967 [2]	4,572	2,672	1,900	3,623	949	2,929	1,643
1968 [2]	4,842	2,823	2,019	3,856	985	3,218	1,624
1969	5,128	2,980	2,148	4,041	1,087	3,454	1,673
1970	5,390	3,114	2,276	4,234	1,156	3,674	1,716
1971	5,483	3,147	2,336	4,358	1,124	3,771	1,712
	PROJECTED [1]						
1972 [3]	5,520	3,139	2,381	4,365	1,155	3,819	1,701
1973	5,770	3,241	2,529	4,562	1,208	4,030	1,740
1974	5,954	3,302	2,652	4,707	1,247	4,197	1,757
1975	6,139	3,363	2,776	4,850	1,289	4,365	1,774
1976	6,307	3,423	2,884	4,982	1,325	4,521	1,786
1977	6,465	3,483	2,982	5,105	1,360	4,671	1,794
1978	6,606	3,544	3,062	5,217	1,389	4,809	1,797
1979	6,724	3,605	3,119	5,309	1,415	4,931	1,793
1980	6,829	3,665	3,164	5,392	1,437	5,043	1,786
1981	6,921	3,726	3,195	5,464	1,457	5,145	1,776

[1] The estimates for 1961 through 1968 and projections of undergraduate degree-credit enrollment in 4-year institutions, by sex, attendance status, and institutional control are calculated by subtracting resident graduate enrollment in the above categories (table 17) from corresponding categories of degree-credit enrollment in 4-year institutions (table 7).

[2] The estimates for 1964 through 1968 differ from the estimates published in the 1969 and prior editions of *Projections of Educational Statistics* because they take into account (1) data on resident graduate enrollment available from the unpublished 1967 comprehensive survey of enrollment, (2) revisions in the 1966 comprehensive survey of enrollment data for 4-year institutions, and (3) data on graduate enrollment available from the 1969 supplementary survey.

For further methodological details, see appendix A, table A–1.

[3] Based on preliminary National Center for Educational Statistics data. Not used to determine trend, see page iv.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1961 through 1968, and 1971; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; (3) unpublished data from "Resident and Extension Enrollment in Institutions of Higher Education," fall 1966 and 1967; (4) *Resident and Extension Enrollment in Institutions of Higher Education*, biennially, first term 1961 and 1963; and (5) *Residence and Migration of College Students*, fall 1968.

CHAPTER III
High School Graduates and Earned Degrees

John F. Beamer, Jr

High school graduates (table 20)

The number of high school graduates increased from 1.9 million in the school year 1961–62 to an estimated 3.0 million in 1971–72 and is expected to increase to 3.3 million in 1981–82. These figures include graduates from all regular public and nonpublic high schools in the United States and, unlike the data on enrollments in chapter II, graduates from the following schools not in the regular school system: Federal schools for Indians, schools on Federal installations, residential schools for exceptional children, and subcollegiate departments of colleges and universities. Graduates of these schools comprise less than 1 percent of all high school graduates.

Two main sources form the basis for the figures quoted above. Graduates of regular public schools are reported each fall by the State departments of education. Graduates of regular nonpublic schools are reported in surveys of the schools by the Office of Education. Other graduates included above are estimated from various auxiliary sources.

Projected high school graduates by sex and by control of school are shown in table 20. The projection of public high school graduates to 1981–82 is based on the assumption that, for boys and girls separately, high school graduates expressed as a percentage of the 18-year-old population will follow the 1960–61 to 1970–71 trend. The projection of nonpublic high school graduates assumes little or no increase in the number of graduates in line with similar assumptions regarding nonpublic enrollments.

Girls make up slightly more than half of the graduates at present, but the number of boys graduating has been increasing faster than the number of girls. By the late seventies, the number of boys graduating is expected to exceed the number of girls. The percentage of the 18-year-old population graduating will still be slightly higher for girls.

Earned degrees

Earned degree reports from individual degree-granting institutions of higher education, received each fall by the Office of Education, provide information on the number of degrees granted by level and sex and by academic field of concentration. They cover degrees granted during the academic year ending in June and include degrees earned in the prior summer.

Two major changes have been made in this edition of *Projections of Educational Statistics* concerning the reporting of earned degrees. One change is the result of the survey of earned degrees being based on a new taxonomy. This results in a breakdown of earned degrees into fields shown in tables 22–26 which differs from the breakdown in previous editions. The new breakdown is consistent with that shown in *A Taxonomy of Instructional Programs in Higher Education.*[1] To obtain the distribution of degrees by field for the back years, the earned degrees were redistributed as well as possible to conform to the new taxonomy. For a complete listing of the instructional programs included in each field, see appendix A, "Classification of Degrees by Field of Study," pages 151–54.

The other change deals with the principal levels of earned degrees that are reported and projected. In past years, three principal levels were projected: bachelor's, including first-professional degrees; master's degrees; and doctorates. Now, bachelor's degrees and first-professional degrees are projected separately. Since 1960–61, first-professional degrees have been reported separately from bachelor's degrees, but the definitions of what constitutes a first-professional degree have not been uniform throughout the

[1] U.S. Department of Health, Education, and Welfare. Office of Education. U.S. Government Printing Office, Washington, 1970.

period. For that reason, no attempt was made in the past to project these degrees separately. (See "Changes in Degree-Level Definitions," appendix A, for a comparison of these definitions.) Recently, however, a stable definition of first-professional degrees has been established, and reporting will be reasonably uniform in the future.

Earned degrees, by level and sex (table 21)

Projected degrees by level and sex are shown in table 21. Based on reports of degrees through 1970–71, the total numbers, by level, are expected to increase as follows:

Level of degree	Granted 1961–62	Estimated 1971–72	Projected 1981–82
Bachelor's	387,800	876,000	1,242,000
First-professional	26,500	45,200	79,500
Master's	88,400	239,000	332,000
Doctorate	11,600	34,600	53,500

The methodology for estimating and projecting these degrees is basically the same as that used for the 1971 edition of *Projections of Educational Statistics*. The projections of degrees by level and sex in this edition are based on the following: (1) The relationship between college-age population and the number of degrees granted at each of the four levels during the 1960–61 to 1970–71 period, (2) first-time degree-credit enrollment 4 years before the bachelor's degree, (3) the average of 1st-year enrollment for first-professional degrees 3 and 4 years before the first-professional degree, (4) the average of 1st-year enrollment for master's and doctor's degrees 1 and 2 years before the master's degree, and (5) the average of 1st-year enrollment for master's and doctor's degrees 5 and 6 years before the doctor's degree.

For a more detailed description of the methodology used, see appendix A, table A–2.

Earned degrees, by level and field (tables 22–26)

The fields presented are divided into three main groups at each level except first-professional. These groups are (a) social sciences, (b) humanities, and (c) natural sciences and miscellaneous fields. The fields included in the three groups and the percentage distribution of degrees by level and field for the years 1961–62, 1971–72, and 1981–82 are shown in table 22. The projected number of earned degrees by field is shown in tables 23–26, each for one of the four levels.

Projections of bachelor's degrees by field are done separately by sex and then added together. This is also true for the higher levels of earned degrees. For each sex, the projections are based primarily on the assumption that the percentage that degrees in a particular field are of total degrees will follow the 1960–61 to 1970–71 trend to 1981–82 or else remain at approximately the 1970–71 rate through 1981–82. For the projections of earned degrees in health professions conferred on women, projections of nursing degrees supplied by the National Institutes of Health were taken into account.

Projections of master's degrees are based on the assumption that the percentage distribution of degrees by field for each sex will continue the 1960–61 to 1970–71 trends to 1981–82 or else remain at approximately the 1970–71 rate through 1981–82.

Fall 1971 data on enrollment for advanced degrees were not available in time to be used in making degree projections. Estimates were made for men and for women in all fields, but estimates by individual fields were not made, since it is doubtful that these estimates would be accurate enough to improve projections of degrees by field. Therefore, projections of master's, doctor's, and first-professional degrees in all fields are based on one more year of enrollment for advanced degrees than the corresponding projections by field.

For doctor's degrees, the projections for 1972–73 through 1974–75 are based on the assumption that the percentage that degrees in a particular field in 1970–71 are of the average enrollment 5 and 6 years earlier of 1st-year students working toward a master's or doctor's degree in this field will remain approximately constant. The projections for 1975–76 through 1981–82 are based on the assumption that the percentage distribution of degrees by field for each sex will continue the 1964–65 to 1974–75 trends to 1981–82 or else remain at approximately the 1974–75 rate through 1981–82.

For a more detailed description of the methodology used, see appendix A, table A–2.

First-professional degrees by field were projected by means of the following methods: Medicine, dentistry, and other health professions were projected by the Division of Manpower Intelligence, National Institutes of Health. These projections are based on output resulting from support in the Comprehensive Manpower Training Act of 1971. The projections of "other" first-professional degrees is based primarily on the assumption that for men and women separately, the percentage that "other" degrees are of total degrees will remain constant at the 1970–71 rate to 1981–82. Projected law degrees are the differences in each year between the projected number of all first-professional degrees and the sum of projected first-professional degrees in medicine, dentistry, other health professions, and the "other" category.

Bachelor's degrees, by field (tables 22, 23)

In 1961–62, social sciences made up only about 17 percent of all bachelor's degrees, but increased to 25 percent in 1971–72, and are projected to increase to 28 percent in 1981–82. The humanities fields have likewise been increasing. From about 14 percent of total bachelor's degrees in 1961–62, the percentage rose to about 17 percent in 1971–72 and is projected to increase slightly to about 18 percent in 1981–82. This, of course, means that natural sciences and miscellaneous fields have been decreasing proportionately.

Projections of bachelor's degrees by the field in which they were awarded are shown in table 23. The rate of increase of all three areas of study is not expected to be nearly as great in the next 10 years as during the past 10 years. Even the actual increase in earned degrees for all three areas is expected to be less in the next 10 years than in the past 10 years.

Bachelor's degrees in the social sciences rose from 66,532 in 1961–62 to an estimated 219,200 in 1971–72 and are expected to be 347,560 in 1981–82. The humanities, which have grown much less rapidly, increased from 55,414 earned bachelor's degrees in 1961–62 to an estimated 146,290 in 1971–72 and are expected to be 217,460 in 1981–82. The largest area of earned bachelor's degrees, made up of natural sciences and miscellaneous fields, rose from 265,884 in 1961–62 to an estimated 510,510 in 1971–72 and is expected to be 676,980 in 1981–82.

The physical sciences field is the only field expected to decrease in earned bachelor's degrees over the next 10 years. Engineering is expected to decrease during the next few years but increase later so that there will be more engineering degrees awarded in 1981–82 than there were in 1971–72.

In both the social sciences and the humanities, all the fields increased or stayed the same in relation to total bachelor's degrees awarded, and all these fields are expected to continue to increase or stay the same in relation to total bachelor's degrees over the next 10 years. In the natural sciences and miscellaneous fields, almost all of the fields have shown a proportionate decrease in bachelor's degrees the past 10 years, and most are expected to show a proportionate decrease for the next 10 years.

The social science field is the field which had the largest increase as a proportion of total bachelor's degrees conferred during the past 10 years. Psychology is the field which is expected to have the largest increase in this proportion during the next 10 years. The largest decrease in this proportion during the past 10 years was for engineering, while education is expected to have the greatest such decrease during the next 10 years.

Master's degrees, by field (tables 22, 24)

The proportion of master's degrees that were awarded in the social sciences rose from about 15 percent in 1961–62 to an estimated 16 percent in 1971–72 and is expected to increase slightly to about 17 percent in 1981–82. For the humanities, the proportion of master's degrees rose from about 11 percent in 1961–62 to 12 percent in 1971–72 and is expected to remain at about the same rate through 1981–82. The great majority of master's degrees are in the natural sciences and miscellaneous fields. For this area of study the proportion decreased from about 74 percent in 1961–62 to about 72 percent in 1971–72 and is expected to remain at that level through 1981–82.

Projections of master's degrees by the field in which they were awarded are shown in table 24. As was true for bachelor's degrees, not only is the expected rate of increase to be lower during the next 10 years, but also the actual increase in earned degrees for all three areas is expected to be less. Master's degrees in the social sciences rose from 13,023 in 1961–62 to an estimated 38,680 in 1971–72 and are expected to increase to 54,650 in 1981–82. Humanities have grown from 9,574 earned degrees in 1961–62 to an estimated 28,670 in 1971–72 and are expected to increase to 38,360 in 1981–82. For natural sciences and miscellaneous fields, the earned master's degrees rose from 65,817 in 1961–62 to an estimated 171,650 in 1971–72 and are expected to increase to 238,990 in 1981–82.

The field which had the largest increase in the proportion of total master's degrees during the past 10 years was "other business and management." Engineering was the field with the largest decrease in this proportion. Over the next 10 years the proportionate changes are expected to be minimal. The largest change, however, is expected to be a continued downward trend in engineering.

Doctor's degrees, by field (tables 22, 25)

The proportion of doctor's degrees that were awarded in the social sciences was about 18 percent for both 1961–62 and 1971–72 and is expected to increase to about 19 percent in 1981–82. For the humanities, the proportion of doctor's degrees rose from 11 percent in 1961–62 to about 13 percent in 1971–72 and is expected to be the same in 1981–82. The proportion of doctorates awarded in the natural sciences and miscellaneous fields decreased slightly from 71 percent in 1961–62 to about 70 percent in 1971–72 and is expected to decrease to about 68 percent in 1981–82.

Earned doctor's degrees, which have been increasing at a high rate during the past 10 years, are expected to continue rising a great deal in actual numbers during the next 10 years. However, the rate of increase will be much less. Fields expected to more than double during the next 10 years are computer and information sciences, health professions, and other business and management. The only field expected to show a decrease in earned doctorates during the next 10 years is physical sciences. All four of the specified fields above come under natural sciences and miscellaneous fields.

Doctor's degrees by fields of specialization are shown in table 25. Doctor's degrees in the social sciences rose from 2,097 in 1961–62 to an estimated 6,150 in 1971–72 and are expected to increase to 10,210 in 1981–82. Humanities have grown from 1,275 earned degrees in 1961–62 to an estimated 4,400 in 1971–72 and are expected to increase to 6,790 in 1981–82. For natural sciences and miscellaneous fields, the earned degrees rose from 8,250 in 1961–62 to an estimated 24,050 in 1971–72 and are expected to increase to 36,500 in 1981–82.

First-professional degrees, by field (table 26)

This edition of *Projections of Educational Statistics* is the first one providing a separate table for earned first-professional degrees, by field. The total number of these earned degrees rose from 26,457 in 1961–62 to an estimated 45,200 in 1971–72 and is expected to be 79,500 in 1981–82. Not only is the expected increase for the next 10 years greater in the actual number of earned degrees, but the percentage increase will also be greater. This also is true for the individual fields of medicine and dentistry.

Table 20.—High school graduates, by sex and by institutional control: United States, 1960–61 to 1981–82

[In thousands]

Year	Total high school graduates[1]	Sex		Control	
		Boys	Girls	Public	Private (estimated)
(1)	(2)	(3)	(4)	(5)	(6)
1960–61	1,971	958	1,013	1,732	239
1961–62	1,925	941	984	1,685	240
1962–63	1,950	959	991	1,717	[2] 233
1963–64	2,290	1,123	1,167	2,015	[2] 275
1964–65	2,665	1,314	1,351	2,366	[2] 298
1965–66	2,672	1,326	1,346	2,374	298
1966–67	2,679	1,332	1,348	2,381	298
1967–68	2,702	1,341	1,360	2,402	300
1968–69	2,829	1,402	1,427	2,529	300
1969–70	2,896	1,433	1,463	2,596	300
1970–71	2,943	1,456	1,487	2,643	300
1971–72[3]	3,043	1,509	1,534	2,743	300
	PROJECTED[4]				
1972–73	3,137	1,559	1,578	2,837	300
1973–74	3,250	1,618	1,632	2,950	300
1974–75	3,331	1,660	1,671	3,031	300
1975–76	3,363	1,677	1,686	3,063	300
1976–77	3,390	1,691	1,699	3,090	300
1977–78	3,420	1,708	1,712	3,120	300
1978–79	3,427	1,714	1,713	3,127	300
1979–80	3,409	1,707	1,702	3,109	300
1980–81	3,378	1,693	1,685	3,078	300
1981–82	3,298	1,653	1,645	2,998	300

[1] Includes regular public and nonpublic schools, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and federally operated schools on Federal installations. Excludes equivalency certificates. More than 99 percent of public school graduates and 97 percent of nonpublic school graduates are graduates of regular day schools.

[2] Reported data from Office of Education surveys.

[3] Estimated.

[4] The projection of public high school graduates is based on the following assumptions: (1) The number of boys graduating, expressed as a percentage of the number of boys in the population averaging 18 years of age, will follow the 1960–61 to 1970–71 trend, and (2) the number of girls graduating, expressed as a percentage of the number of girls in the population averaging 18 years of age, will follow the 1960–61 to 1970–71 trend.

The projection of nonpublic high school graduates is based on the assumptions that: (1) The number of nonpublic high school graduates will remain approximately the same throughout the projection period, and (2) the percentage of boys among nonpublic high school graduates (48.1 percent in 1964–65) will remain constant to 1981–82.

For further methodological details, see appendix A, table A–2.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: High school graduate data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Statistics of Public Schools*, annually, fall 1963 through 1971; (2) *Statistics of Nonpublic Elementary and Secondary Schools*, 1965–66; and (3) *Nonpublic School Enrollments in Grades 9–12, Fall 1964, and Graduates, 1963–64*.

Table 21.—Earned degree, by level and by sex of student: United States, 1960–61 to 1981–82

Year	Bachelor's degrees[1]			First-professional degrees[2]			Master's degrees[3]			Doctor's degrees (except first-professional)[4]		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1960–61	368,857	227,362	141,495	26,391	25,715	676	81,690	55,267	26,423	10,575	9,463	1,112
1961–62	387,830	233,821	154,009	26,457	25,686	771	88,414	59,710	28,704	11,622	10,377	1,245
1962–63	416,421	245,622	170,799	27,097	26,260	837	95,470	64,198	31,272	12,822	11,448	1,374
1963–64	466,486	269,861	196,625	27,667	26,815	852	105,551	70,339	35,212	14,490	12,955	1,535
1964–65	501,248	288,538	212,710	28,755	27,748	1,007	117,152	77,544	39,608	16,467	14,692	1,775
1965–66	520,248	299,196	221,052	30,799	29,657	1,142	140,548	93,063	47,485	18,237	16,121	2,116
1966–67	558,075	322,171	235,904	32,472	31,178	1,294	157,707	103,092	54,615	20,617	18,163	2,454
1967–68	631,923	357,270	274,653	34,787	33,237	1,550	176,749	113,519	63,230	23,089	20,183	2,906
1968–69	728,167	409,881	318,286	36,018	34,499	1,519	193,756	121,531	72,225	26,188	22,752	3,436
1969–70	791,510	450,234	341,276	35,724	33,940	1,784	208,291	125,624	82,667	29,866	25,890	3,976
1970–71	839,730	475,594	364,136	37,946	35,544	2,402	230,509	138,146	92,363	32,107	27,530	4,577
1971–72[5]	876,000	493,000	383,000	45,200	42,100	3,100	239,000	142,000	97,000	34,600	29,400	5,200
PROJECTED[6]												
1972–73	926,000	511,000	415,000	54,800	50,800	4,000	250,000	146,000	104,000	37,700	31,600	6,100
1973–74	958,000	525,000	433,000	62,600	56,700	5,900	260,000	150,000	110,000	39,900	33,000	6,900
1974–75	948,000	514,000	434,000	64,700	58,500	6,200	272,000	155,000	117,000	42,700	35,200	7,500
1975–76	1,003,000	542,000	461,000	66,600	60,200	6,400	280,000	157,000	123,000	44,100	36,300	7,800
1976–77	1,055,000	569,000	486,000	69,400	62,600	6,800	292,000	161,000	131,000	45,800	37,600	8,200
1977–78	1,107,000	595,000	512,000	70,800	63,700	7,100	302,000	165,000	137,000	47,700	38,900	8,800
1978–79	1,159,000	621,000	538,000	73,200	65,700	7,500	310,000	168,000	142,000	48,900	39,500	9,400
1979–80	1,192,000	638,000	554,000	75,100	67,400	7,700	320,000	172,000	148,000	50,500	40,500	10,000
1980–81	1,221,000	652,000	569,000	77,400	69,400	8,000	329,000	176,000	153,000	52,000	41,400	10,600
1981–82	1,242,000	662,000	580,000	79,500	71,100	8,400	332,000	177,000	155,000	53,500	42,300	11,200

[1] In 1971 and prior editions of *Projections of Educational Statistics*, bachelor's degrees were not shown separately but were combined with first-professional degrees.

[2] The following specified degrees are reported as first-professional: Dentistry (D.D.S. or D.M.D.), law (LL.B. or J.D.), medicine (M.D.), theology (B.D.), veterinary medicine (D.V.M.), chiropody or podiatry (D.S.C. or D.P.), optometry (O.D.), and osteopathy (D.O.).

[3] Master's degrees differ from those published in the 1968 and prior editions of *Projections of Educational Statistics* because of adjustments to secure comparability with current reports of these degrees. For estimation details, see appendix A, "Estimation Methods," section 1. Master's degrees also differ from those published in the 1969 through 1971 editions because of discrepancies with the reported numbers of degrees.

[4] Doctor's degrees include the Ph.D. in any field as well as such degrees as doctor of education, doctor of juridical science, and doctor of public health (preceded by a professional degree in medicine or sanitary engineering). They exclude degrees defined as first-professional, such as doctor of veterinary medicine, and doctor of divinity.

[5] Estimated.

[6] The estimation and projection of degrees by level and sex of student are based on the following assumptions: (1) The estimates of bachelor's degrees by sex for 1971–72 and the projections of these degrees for 1972–73 through 1974–75 are based on the assumption that the percentage of degrees in 1970–71 to first-time degree-credit enrollment 4 years earlier will remain approximately constant. The projections for 1975–76 through 1981–82 are based on the assumption that the percentage of degrees to population will continue the 1964–65 to 1974–75 trend. (2) The estimates of first-professional degrees by sex for 1971–72 and the projections of these degrees for 1972–73 and 1973–74 are based on the assumption that the percentage of degrees in 1970–71 to the average of 1st-year enrollment for first-professional degrees 3 and 4 years earlier will remain approximately constant. The projections for 1974–75 through 1981–82 are based on the assumption that the percentage of degrees to population will follow the 1963–64 to 1973–74 trend to 1981–82. (3) The estimates of master's degrees for 1971–72 and projections of master's degrees for 1972–73 to 1981–82 are based on the assumption that the percentage of degrees to population will follow the 1960–61 to 1970–71 trend to 1981–82. (4) The estimates of doctor's degrees by sex for 1971–72 and the projections of these degrees for 1972–73 through 1975–76 are based on the assumption that the percentage of degrees in 1970–71 to the average of 1st-year enrollment for master's and doctor's degrees 5 and 6 years earlier will remain approximately constant. The projections for 1976–77 through 1981–82 are based on the assumption that the percentage of degrees to population will follow the 1965–66 to 1975–76 trend to 1981–82. (5) Data from *Students Enrolled for Advanced Degrees, Fall 1971* were not available in time to be used in making these projections. However, estimates by sex of the number of 1st-year students enrolled for advanced degrees were made based on graduate enrollment data. Similar estimates were made for first-professional degrees. These estimates are shown in appendix B, table B–5. (6) A composite population by sex, representative of the age of bachelor's recipients, was used for projecting bachelor's degrees. The same population was used with a 2-year time lag for projecting master's degrees and a 5-year timelag for projecting doctor's degrees. For population used, see appendix B, table B–2; and for estimation details, see appendix A, "Estimation Methods," section 5.

For further methodological details, see appendix A, table A–2.

NOTE.—Data include 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals. To obtain projections of earned degrees for the United States and outlying areas, multiply the projections in this table by 1.008 for bachelor's degrees, 1.009 for first-professional degrees, 1.004 for master's degrees, and 1.000 for doctor's degrees.

SOURCES: Degree and enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Earned Degrees Conferred by Institutions of Higher Education*, 1960–61 through 1970–71; (2) *Opening (Fall) Enrollment in Higher Education*, 1961 through 1968 and 1971; (3) *Enrollment for Advanced Degrees*, fall 1961, 1962 and 1963; (4) *Enrollment for Master's and Higher Degrees, Fall 1964*; (5) *Enrollment for Master's and Higher Degrees, Fall 1965: Summary Report*; (6) *Students Enrolled for Advanced Degrees*, fall 1966 through 1970; and (7) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970.

Table 22.—Percentage distribution of earned degrees, by field of study and level: United States, 1961–62 to 1981–82

Year	A. Social sciences					B. Humanities					
	Total social sciences	Social science	Psychology	Public affairs and services	Library sciences	Total humanities	Architecture and environmental design	Fine and applied arts	Foreign languages	Communications	Letters
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Bachelor's											
1961–62	17.2	14.3	2.5	0.3	0.1	14.3	0.5	3.5	2.0	0.6	7.7
1971–72	25.0	19.0	4.7	1.2	.1	16.7	.6	3.7	2.3	1.3	8.7
1981–82	28.0	19.5	6.9	1.4	.1	17.5	.6	4.3	2.4	1.3	8.9
Master's											
1961–62	14.7	7.4	2.1	2.8	2.4	10.8	.4	3.6	1.7	.3	5.0
1971–72	16.2	7.6	1.9	3.6	3.1	12.0	.8	2.9	2.1	.8	5.5
1981–82	16.5	7.4	1.9	3.7	3.4	11.6	.8	3.0	1.7	.8	5.3
Doctor's (except first-professional)											
1961–62	18.0	10.7	6.7	.5	.1	11.0	L	2.7	2.0	.1	6.3
1971–72	17.8	11.5	5.6	.5	.1	12.7	.1	2.3	2.5	.4	7.4
1981–82	19.1	11.6	6.8	.3	.1	12.7	.1	2.4	2.2	.4	7.5

L = less than 0.05 percent.

Table 22.—Percentage distribution of earned degrees, by field of study and level: United States, 1961–62 to 1981–82—Continued

C. Natural sciences and miscellaneous fields

Year	Total natural sciences and miscellaneous fields	Mathematics and statistics	Computer and information sciences	Engineering	Physical sciences	Biological sciences	Agriculture and natural resources	Health professions	Accounting	Other business and management	Education	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
						Bachelor's						
1961–62	68.6	3.8		9.3	4.1	4.3	1.7	3.3	2.9	10.5	24.7	3.9
1971–72	58.3	2.9	0.3	5.8	2.4	4.2	1.5	3.1	2.6	11.2	20.7	3.6
1981–82	54.5	2.7	.6	4.2	1.2	4.1	1.4	3.4	2.6	11.8	18.9	3.6
						Master's						
1961–62	74.4	3.0		10.1	4.4	3.0	1.9	1.8	.6	5.5	40.4	3.6
1971–72	71.8	2.3	.7	6.9	2.7	2.6	1.1	2.5	.5	11.1	38.6	2.9
1981–82	72.0	2.1	.7	5.1	2.5	2.4	1.0	3.1	.4	11.4	40.5	2.8
						Doctor's (except first-professional)						
1961–62	71.0	3.4		10.5	18.3	11.5	5.0	1.3	.2	1.8	16.1	3.1
1971–72	69.5	3.6	.4	11.1	13.0	11.1	3.4	1.4	.2	2.3	21.2	1.7
1981–82	68.2	3.5	.8	9.4	8.2	10.2	3.1	1.8	.1	3.2	26.0	1.8

Table 23.—Earned bachelor's degrees, by field of study: United States, 1960–61 to 1981–82[1]

Year	A. Social sciences					B. Humanities					
	Total social sciences	Social science	Psychology	Public affairs and services	Library sciences	Total humanities	Architecture and environmental design	Fine and applied arts	Foreign languages	Communications	Letters
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1960–61	60,163	50,271	8,460	993	439	50,302	1,674	12,949	6,364	2,160	27,155
1961–62	66,532	55,454	9,578	1,077	423	55,414	1,774	13,609	7,906	2,174	29,951
1962–63	76,025	63,259	10,993	1,311	462	62,592	2,028	14,515	9,707	2,263	34,079
1963–64	90,144	74,930	13,258	1,446	510	72,965	2,059	16,159	12,160	2,560	40,027
1964–65	99,240	82,224	14,527	1,866	623	80,197	2,333	17,391	13,859	2,814	43,800
1965–66	110,723	91,198	16,841	2,042	642	87,017	2,663	18,679	15,186	3,131	47,358
1966–67	124,414	102,132	19,303	2,278	701	96,074	2,937	21,548	16,706	3,519	51,364
1967–68	145,902	118,426	23,768	2,894	814	110,344	3,262	25,521	19,128	4,363	58,070
1968–69	172,616	138,478	29,295	3,843	1,000	127,905	3,477	31,588	21,493	5,197	66,150
1969–70	190,395	151,391	33,536	4,414	1,054	134,675	4,105	35,901	20,895	5,959	67,815
1970–71	205,931	157,818	37,880	9,220	1,013	139,833	5,570	30,394	19,945	10,802	73,122
1971–72[2]	219,200	166,520	41,460	10,160	1,060	146,290	5,620	32,500	20,290	11,460	76,420
PROJECTED[3]											
1972–73	235,340	177,140	46,000	11,060	1,140	156,490	5,870	35,170	21,780	12,110	81,560
1973–74	246,900	184,260	49,740	11,710	1,190	162,860	6,050	37,010	22,650	12,520	84,630
1974–75	248,300	183,710	51,500	11,900	1,190	162,610	5,990	37,350	22,590	12,430	84,250
1975–76	266,970	195,900	56,910	12,900	1,260	173,160	6,360	40,200	23,970	13,200	89,430
1976–77	283,530	206,250	62,100	13,840	1,340	182,580	6,660	42,820	25,230	13,860	94,010
1977–78	300,150	216,480	67,470	14,800	1,400	192,150	6,950	45,510	26,520	14,500	98,670
1978–79	317,070	226,700	73,110	15,780	1,480	201,790	7,240	48,260	27,810	15,140	103,340
1979–80	328,810	233,070	77,700	16,520	1,520	207,970	7,420	50,210	28,600	15,540	106,200
1980–81	339,330	238,460	82,110	17,210	1,550	213,450	7,560	52,010	29,310	15,880	108,690
1981–82	347,560	242,180	86,000	17,800	1,580	217,460	7,660	53,460	29,810	16,110	110,420

See footnotes at end of table.

Table 23.—Earned bachelor's degrees, by field of study: United States, 1960–61 to 1981–82[1] —Continued

C. Natural sciences and miscellaneous fields

Year	Total natural sciences and miscellaneous fields	Mathematics and statistics	Computer and information sciences	Engineering[4]	Physical sciences	Biological sciences	Agriculture and natural resources	Health professions	Accounting	Other business and management	Education	Other[5]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1960–61	258,392	13,097	.....	37,528	15,452	15,861	6,260	12,863	10,580	40,453	91,187	15,111
1961–62	265,884	14,570	.....	36,070	15,851	16,694	6,546	12,973	11,353	40,786	95,983	15,058
1962–63	277,804	16,078	.....	34,972	16,217	18,849	6,748	13,944	11,880	42,156	100,909	16,051
1963–64	303,377	18,624	.....	37,014	17,457	22,454	6,947	13,421	13,675	45,523	110,559	17,703
1964–65	321,811	19,460	87	38,514	17,859	24,872	7,377	15,444	14,886	48,169	116,529	18,614
1965–66	322,508	19,977	89	37,972	17,129	26,565	7,863	15,848	14,903	48,736	115,173	18,253
1966–67	337,587	21,207	222	38,693	17,739	28,483	8,636	16,541	15,593	54,418	117,482	18,573
1967–68	375,677	23,513	459	40,541	19,380	31,429	9,215	18,170	17,922	62,670	132,087	20,291
1968–69	427,646	27,209	933	45,517	21,480	34,989	10,965	20,230	20,032	74,501	148,554	23,236
1969–70	466,440	27,442	1,544	49,678	21,439	37,031	12,382	22,141	21,183	84,871	161,904	26,825
1970–71	493,966	24,801	2,388	50,046	21,412	35,743	12,672	25,226	22,099	93,428	176,571	29,580
1971–72[2]	510,510	25,370	2,810	51,080	21,160	36,870	12,900	26,780	22,970	98,020	181,390	31,160
PROJECTED[3]												
1972–73	534,170	26,700	3,240	50,560	21,090	38,810	13,430	28,900	24,060	103,330	190,980	33,070
1973–74	548,240	27,460	3,590	50,370	20,590	40,090	13,820	30,620	24,910	107,460	195,100	34,230
1974–75	537,090	27,100	3,860	43,840	19,340	39,760	13,660	32,380	24,720	107,330	191,110	33,990
1975–76	562,870	28,670	4,380	41,110	19,360	42,230	14,520	34,660	26,360	115,140	200,380	36,060
1976–77	588,890	29,910	4,920	43,520	19,080	44,280	15,200	36,540	27,700	121,680	208,170	37,890
1977–78	614,700	31,140	5,440	45,680	18,670	46,310	15,850	38,370	29,020	128,180	216,370	39,670
1978–79	640,140	32,410	6,030	47,770	18,220	48,330	16,490	39,720	30,340	134,740	224,620	41,470
1979–80	655,220	33,080	6,500	49,240	17,340	49,580	16,890	40,640	31,250	139,310	228,790	42,600
1980–81	668,220	33,660	7,010	50,600	16,320	50,610	17,200	41,760	31,970	143,230	232,350	43,510
1981–82	676,980	33,940	7,430	51,590	15,220	51,300	17,410	42,640	32,490	146,330	234,450	44,180

[1] The breakdown of earned degrees into fields shown in this table differs from the breakdown in previous editions. The new breakdown is consistent with that shown in *A Taxonomy of Instructional Programs in Higher Education*. To obtain the distribution of degrees by field for the back years, the earned degrees were redistributed as well as possible to conform to the new taxonomy. For a complete listing of the instructional programs included in each field, see appendix A, "Classification of Degrees by Field of Study," pages 151–54.

[2] Estimated.

[3] The projections are based on the assumption that the percentage distribution of degrees by field for each sex will continue the 1960–61 to 1970–71 trends to 1981–82 or else remain at approximately the 1970–71 rate through 1981–82. One exception to this is in the health professions, for which projections of women nursing graduates were made by the Bureau of Health Manpower Education, National Institutes of Health. Another exception was in engineering, for which data on freshman enrollment in engineering programs from the Engineering Manpower Commission of Engineers Joint Council was used in making projections for men's bachelor's degrees.

For methodological details, see appendix A, table A–2.

[4] Includes engineering technology degrees. Engineering technology degrees are expected to increase from 5,148 degrees in 1970–71 to 5,500 degrees in 1971–72, and then continue to increase by 500 additional degrees per year, growing to 10,500 degrees in 1981–82.

[5] Includes home economics, law, military science, theology, and interdisciplinary studies.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: (1) U.S. Department of Health, Education, and Welfare, Office of Education publication: *Earned Degrees Conferred by Institutions of Higher Education*, annually, 1960–61 through 1970–71; (2) Engineering Manpower Commission of Engineers Joint Council publication: *Engineering and Technology Enrollments, Fall 1971*.

Table 24.—Earned master's degrees, by field of study: United States, 1960–61 to 1981–82[1]

Year	A. Social sciences					B. Humanities					
	Total social sciences	Social science	Psychology	Public affairs and services	Library sciences	Total humanities	Architecture and environmental design	Fine and applied arts	Foreign languages	Communications	Letters
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1960–61	11,758	5,717	1,719	2,391	1,931	8,730	378	2,910	1,274	255	3,913
1961–62	13,023	6,561	1,832	2,490	2,140	9,574	311	3,151	1,480	251	4,381
1962–63	14,725	7,619	1,918	2,825	2,363	10,804	356	3,363	1,849	288	4,948
1963–64	16,546	8,519	2,059	3,251	2,717	12,166	383	3,673	2,196	364	5,550
1964–65	18,696	9,619	2,187	3,679	3,211	14,203	373	4,244	2,690	384	6,512
1965–66	22,541	11,616	2,423	4,586	3,916	17,667	702	5,019	3,393	523	8,030
1966–67	25,919	13,676	2,898	4,856	4,489	20,648	812	5,812	4,017	649	9,358
1967–68	28,598	14,644	3,237	5,552	5,165	22,966	1,021	6,563	4,511	730	10,141
1968–69	32,169	16,514	3,736	5,987	5,932	25,256	1,143	7,413	4,691	785	11,224
1969–70	33,878	16,659	3,953	6,755	6,511	26,305	1,427	7,849	4,803	862	11,364
1970–71	37,200	17,508	4,431	8,260	7,001	27,701	1,705	6,675	4,755	1,856	12,710
1971–72[2]	38,680	18,120	4,570	8,590	7,400	28,670	1,820	6,880	4,900	1,960	13,110
	PROJECTED[3]										
1972–73	40,560	18,870	4,780	9,030	7,880	29,980	1,900	7,230	5,090	2,040	13,720
1973–74	42,250	19,570	4,960	9,420	8,300	31,090	1,970	7,540	5,220	2,120	14,240
1974–75	44,280	20,420	5,190	9,880	8,790	32,440	2,060	7,910	5,390	2,220	14,860
1975–76	45,690	20,940	5,340	10,220	9,190	33,300	2,110	8,160	5,470	2,280	15,280
1976–77	47,750	21,750	5,570	10,690	9,740	34,650	2,190	8,550	5,630	2,370	15,910
1977–78	49,460	22,450	5,760	11,090	10,160	35,690	2,280	8,860	5,710	2,450	16,390
1978–79	50,850	23,010	5,910	11,410	10,520	36,450	2,340	9,120	5,750	2,510	16,730
1979–80	52,550	23,710	6,100	11,800	10,940	37,430	2,410	9,430	5,800	2,600	17,190
1980–81	54,090	24,360	6,280	12,150	11,300	38,370	2,500	9,710	5,830	2,660	17,670
1981–82	54,650	24,580	6,340	12,280	11,450	38,360	2,530	9,810	5,740	2,690	17,590

See footnotes at end of table.

Table 24.—Earned master's degrees, by field of study: United States, 1960–61 to 1981–82[1] —Continued

Year	C. Natural sciences and miscellaneous fields											
	Total natural sciences and miscellaneous fields	Mathematics and statistics	Computer and information sciences	Engineering	Physical sciences	Biological sciences	Agriculture and natural resources	Health professions	Accounting	Other business and management	Education	Other[4]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1960–61	61,202	2,235	.....	8,214	3,786	2,358	1,550	1,632	447	4,328	33,658	2,994
1961–62	65,817	2,680	.....	8,953	3,913	2,642	1,721	1,632	511	4,890	35,728	3,147
1962–63	69,941	3,320	.....	9,666	4,115	2,921	1,601	2,011	499	5,439	37,276	3,093
1963–64	76,839	3,625	.....	10,857	4,555	3,296	1,682	2,279	530	5,983	40,376	3,656
1964–65	84,253	4,196	146	12,093	4,906	3,600	1,695	2,494	617	7,073	43,323	4,110
1965–66	100,340	4,769	238	13,717	4,977	4,233	2,034	2,833	862	12,280	49,905	4,492
1966–67	111,140	5,278	449	13,986	5,405	4,996	2,119	3,436	1,024	14,086	55,155	5,206
1967–68	125,185	5,527	548	15,247	5,499	5,506	2,234	3,736	1,137	16,964	62,927	5,860
1968–69	136,331	5,713	1,012	15,372	5,895	5,743	2,496	4,065	1,333	18,279	70,231	6,192
1969–70	148,108	5,636	1,459	15,723	5,935	5,800	2,197	4,488	1,083	20,516	78,275	6,996
1970–71	165,608	5,191	1,588	16,443	6,367	5,728	2,457	5,749	1,097	25,447	88,716	6,825
1971–72[2]	171,650	5,390	1,610	16,520	6,550	6,280	2,570	5,960	1,100	26,440	92,180	7,050
	PROJECTED[3]											
1972–73	179,460	5,590	1,690	16,560	6,760	6,490	2,650	6,380	1,130	27,720	97,150	7,340
1973–74	186,660	5,760	1,760	16,720	6,950	6,700	2,730	6,780	1,170	28,870	101,620	7,600
1974–75	195,280	5,970	1,860	16,980	7,190	6,950	2,830	7,260	1,210	30,240	106,870	7,920
1975–76	201,010	6,080	1,920	16,890	7,290	7,100	2,870	7,660	1,240	31,070	110,780	8,110
1976–77	209,600	6,280	2,010	17,000	7,500	7,340	2,950	8,180	1,280	32,310	116,330	8,420
1977–78	216,850	6,440	2,090	17,110	7,680	7,530	3,020	8,640	1,310	33,550	120,810	8,670
1978–79	222,700	6,550	2,170	17,090	7,810	7,680	3,090	9,040	1,340	34,600	124,470	8,860
1979–80	230,020	6,690	2,260	17,160	7,990	7,870	3,160	9,540	1,360	35,880	129,010	9,100
1980–81	236,540	6,820	2,350	17,210	8,150	8,040	3,240	9,980	1,400	37,170	132,870	9,310
1981–82	238,990	6,840	2,400	16,950	8,180	8,060	3,260	10,260	1,410	37,840	134,440	9,350

[1] The breakdown of earned degrees into fields shown in this table differs from the breakdown in previous editions. The new breakdown is consistent with that shown in *A Taxonomy of Instructional Programs in Higher Education*. To obtain the distribution of degrees by field for the back years, the earned degrees were redistributed as well as possible to conform to the new taxonomy. For a complete listing of the instructional programs included in each field, see appendix A, "Classification of Degrees by Field of Study," pages 151–54.

[2] Estimated.

[3] The projections are based on the assumption that the percentage distribution of degrees by field for each sex will continue the 1960–61 to 1970–71 trends to 1981–82 or else remain at approximately the 1970–71 rate through 1981–82.
For methodological details, see appendix A, table A–2.

[4] Includes home economics, law, military sciences, theology, and interdisciplinary studies.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Degree and enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Earned Degrees Conferred by Institutions of Higher Education*, 1960–61 through 1970–71; and (2) *A Taxonomy of Instructional Programs in Higher Education*.

Table 25.—Earned doctor's degrees (except first-professional), by field of study: United States, 1960–61 to 1981–82[1]

Year	A. Social sciences					B. Humanities					
	Total social sciences	Social science	Psychology	Public affairs and services	Library sciences	Total humanities	Architecture and environmental design	Fine and applied arts	Foreign languages	Communications	Letters
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1960–61	2,007	1,232	703	58	14	1,236	3	303	232	8	690
1961–62	2,097	1,245	781	61	10	1,275	1	311	228	7	728
1962–63	2,347	1,417	844	69	17	1,402	3	379	237	11	772
1963–64	2,677	1,659	939	66	13	1,623	3	422	326	14	858
1964–65	2,776	1,846	839	79	12	1,848	10	428	376	17	1,017
1965–66	3,129	1,980	1,037	93	19	2,061	12	476	428	15	1,130
1966–67	3,641	2,329	1,190	106	16	2,362	18	504	505	23	1,312
1967–68	4,004	2,640	1,232	110	22	2,779	15	528	610	32	1,594
1968–69	4,599	2,953	1,508	121	17	3,124	32	684	659	22	1,727
1969–70	5,383	3,592	1,620	131	40	3,476	35	734	760	17	1,930
1970–71	5,802	3,803	1,782	178	39	3,999	36	621	781	145	2,416
1971–72[2]	6,150	3,990	1,930	190	40	4,400	40	800	850	150	2,560
PROJECTED[3]											
1972–73	6,650	4,230	2,170	210	40	4,810	40	880	900	170	2,820
1973–74	7,160	4,480	2,400	230	50	5,070	40	950	910	180	2,990
1974–75	8,010	4,980	2,750	230	50	5,360	50	1,020	910	190	3,190
1975–76	8,320	5,190	2,840	240	50	5,550	50	1,060	940	200	3,300
1976–77	8,680	5,390	2,970	260	60	5,790	50	1,110	980	210	3,440
1977–78	9,050	5,610	3,120	260	60	6,030	50	1,150	1,020	220	3,590
1978–79	9,300	5,720	3,240	280	60	6,200	50	1,190	1,060	220	3,680
1979–80	9,610	5,890	3,380	280	60	6,390	50	1,220	1,100	230	3,790
1980–81	9,900	6,050	3,500	280	70	6,600	60	1,260	1,140	230	3,910
1981–82	10,210	6,200	3,640	300	70	6,790	60	1,300	1,180	230	4,020

See footnotes at end of table.

Table 25.—Earned doctor's degrees (except first-professional), by field of study: United States, 1960–61 to 1981–82[1] —Continued

C. Natural sciences and miscellaneous fields

Year	Total natural sciences and miscellaneous fields	Mathematics and statistics	Computer and information sciences	Engineering	Physical sciences	Biological sciences	Agriculture and natural resources	Health professions	Accounting	Other business and management	Education	Other[4]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1960–61	7,332	344		959	1,991	1,193	557	133	15	165	1,710	265
1961–62	8,250	396		1,216	2,122	1,338	576	148	27	205	1,867	355
1962–63	9,073	490		1,385	2,380	1,455	552	157	23	235	2,056	340
1963–64	10,190	596		1,705	2,455	1,625	668	192	21	260	2,330	338
1964–65	11,843	682	6	2,133	2,829	1,928	657	173	32	297	2,682	424
1965–66	13,047	782	19	2,315	3,045	2,097	716	251	34	368	3,034	386
1966–67	14,614	832	38	2,619	3,462	2,255	771	250	43	411	3,526	407
1967–68	16,306	947	36	2,933	3,593	2,784	800	243	33	427	4,076	434
1968–69	18,465	1,097	64	3,391	3,859	3,051	886	283	40	506	4,793	495
1969–70	21,007	1,236	107	3,691	4,312	3,289	1,004	357	56	566	5,830	559
1970–71	22,306	1,199	128	3,638	4,390	3,645	1,086	466	61	749	6,398	546
1971–72[2]	24,050	1,250	150	3,830	4,510	3,850	1,170	470	60	810	7,350	600
					PROJECTED[3]							
1972–73	26,240	1,320	180	4,150	4,570	3,970	1,210	530	60	910	8,670	670
1973–74	27,670	1,440	200	4,220	4,540	4,150	1,200	630	60	1,020	9,500	710
1974–75	29,330	1,550	240	4,480	4,570	4,460	1,320	660	60	1,160	10,070	760
1975–76	30,230	1,600	260	4,410	4,500	4,640	1,430	720	60	1,240	10,590	780
1976–77	31,330	1,670	290	4,540	4,480	4,810	1,460	760	60	1,320	11,120	820
1977–78	32,620	1,730	320	4,690	4,430	4,990	1,520	800	70	1,410	11,810	850
1978–79	33,400	1,760	350	4,750	4,410	5,080	1,560	840	70	1,480	12,230	870
1979–80	34,500	1,800	370	4,860	4,430	5,220	1,600	890	70	1,550	12,820	890
1980–81	35,500	1,850	400	4,950	4,410	5,340	1,650	930	70	1,620	13,360	920
1981–82	36,500	1,890	430	5,050	4,410	5,450	1,680	980	70	1,700	13,890	950

[1] The breakdown of earned degrees into fields shown in this table differs from the breakdown in previous editions. The new breakdown is consistent with that shown in *A Taxonomy of Instructional Programs in Higher Education*. To obtain the distribution of degrees by field for the back years, the earned degrees were redistributed as well as possible to conform to the new taxonomy. For a complete listing of the instructional programs included in each field, see appendix A "Classification of Degrees by Field of Study," pages 151–54.

[2] Estimated.

[3] The estimates for 1971–72 and the projections for 1972–73 through 1974–75 are based on the assumption that the percentage that degrees in a particular field in 1970–71 are of the average enrollment 5 and 6 years earlier of 1st-year students working toward a master's or doctor's degree in this field will remain approximately constant.

The projections for 1975–76 through 1981–82 are based on the assumption that the percentage distribution of degrees by field for each sex will continue the 1960–61 to 1974–75 trends to 1981–82 or else remain at approximately the 1974–75 rate through 1981–82.

For methodological details, see appendix A, table A–2.

[4] Includes home economics, law, military science, theology, and interdisciplinary studies.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Degree and enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Earned Degrees Conferred by Institutions of Higher Education*, 1960–61 through 1970–71; (2) *Enrollment for Advanced Degrees*, fall 1961, 1962, and 1963; (3) *Enrollment for Master's and Higher Degrees, Fall 1964*; (4) *Enrollment for Master's and Higher Degrees, Fall 1965*; (5) *Students Enrolled for Advanced Degrees*, fall 1966 through 1970; and (6) *A Taxonomy of Instructional Programs in Higher Education*.

Table 26.—Earned first-professional degrees, by field of study: United States, 1960–61 to 1981–82

Year	Total	Medicine[1]	Dentistry[2]	Other health professions[3]	Law[4]	Other[5]
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1960–61	26,391	6,940	3,265	1,764	9,429	4,993
1961–62	26,457	7,138	3,183	1,599	9,548	4,989
1962–63	27,097	7,231	3,169	1,691	10,105	4,901
1963–64	27,667	7,303	3,180	1,624	10,868	4,692
1964–65	28,755	7,304	3,108	1,794	11,782	4,767
1965–66	30,799	7,673	3,247	1,834	13,481	4,564
1966–67	32,472	7,723	3,341	2,003	15,114	4,291
1967–68	34,787	7,944	3,422	2,153	16,916	4,352
1968–69	36,018	8,025	3,408	2,290	17,436	4,859
1969–70	35,724	8,314	3,718	2,372	15,445	5,875
1970–71	37,946	8,919	3,745	2,495	17,421	5,366
1971–72[6]	45,200	9,610	3,950	2,720	22,510	6,410
			PROJECTED[7]			
1972–73	54,800	10,920	4,230	2,750	29,120	7,780
1973–74	62,600	11,830	4,500	3,020	34,470	8,780
1974–75	64,700	13,080	5,090	3,180	34,280	9,070
1975–76	66,600	13,340	5,170	3,440	35,290	9,360
1976–77	69,400	13,680	5,370	3,580	37,030	9,740
1977–78	70,800	14,240	5,600	3,820	37,220	9,920
1978–79	73,200	14,830	6,000	3,950	38,180	10,240
1979–80	75,100	15,300	6,150	4,070	39,080	10,500
1980–81	77,400	15,770	6,300	4,200	40,310	10,820
1981–82	79,500	16,250	6,450	4,300	41,410	11,090

[1] M.D. degrees only.
[2] D.D.S. or D.M.D. degrees.
[3] Includes degrees in chiropody or podiatry, optometry, osteopathy, and veterinary medicine.
[4] LL.B. or J.D. degrees.
[5] Includes theology and other degrees.
[6] Estimated.
[7] First-professional degrees by field were projected by means of the following methods: (1) Medicine, dentistry, and other health professions were projected by the Division of Manpower Intelligence, National Institutes of Health. These projections are based on output resulting from support in the Comprehensive Manpower Training Act of 1971. (2) The projections of "other" first-professional degrees are based primarily on the assumption that for men and women separately the percentage that "other" degrees are of total degrees will remain constant at the 1970–71 rate to 1981–82. (3) Projected law degrees are the differences in each year between the projected number of all first-professional degrees and the sum of projected first-professional degrees in medicine, dentistry, other health professions, and the "other" category.

SOURCE: Degree data are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: *Earned Degrees Conferred by Institutions of Higher Education*, 1960–61 through 1970–71.

CHAPTER IV
Teachers

Martin M. Frankel and John F. Beamer, Jr.

Elementary and Secondary Schools

There were 2.5 million professional persons employed in the public and private elementary and secondary day schools in fall 1971. These included principals, supervisors, librarians, guidance and psychological personnel, and classroom teachers. Of the total number, 91 percent were classroom teachers. The numbers of professional persons employed in the regular public school systems were reported to the U.S. Office of Education by the State departments of education in each of the 50 States and the District of Columbia. The numbers in the regular nonpublic day schools were reported by the individual schools in Office of Education surveys.

Classroom teachers (table 27)

Prior to 1971, public classroom teachers were reported separately by secondary and elementary schools. The former comprise the junior high and senior high schools; the latter, the elementary or grade schools. In 1971, only the total of public elementary and secondary teachers was reported. Therefore, the numbers of elementary teachers and secondary teachers for 1971 are estimated (see appendix A, "Estimation Methods," section 4). The number of classroom teachers in public secondary schools increased from 592,000 in 1961 to an estimated 925,000 in 1971 and is expected to increase to 993,000 in 1976 before decreasing to 899,000 in 1981. The number of teachers in public elementary schools increased from 869,000 in 1961 to an estimated 1.1 million in 1971 and is expected to decrease slightly through 1975 and then begin increasing to nearly 1.3 million in 1981. The expected fluctuations in the number of both public elementary and secondary classroom teachers are chiefly caused by fluctuations in the expected public school enrollments.

The number of classroom teachers in nonpublic elementary schools has been decreasing since 1966 when it was at its peak at an estimated 150,000 teachers. The number has dropped to an estimated 141,000 in 1971 and is expected to continue decreasing to 122,000 by 1981. The number of classroom teachers in nonpublic secondary schools has also decreased from a high of 78,000 in 1968 to an estimated 71,000 in 1971 and is expected to remain at 71,000 for the next 10 years.

The reduction in the number of classroom teachers in nonpublic schools is primarily due to reduced enrollments in Catholic schools, which have more than offset the reduced pupil-teacher ratios in these schools. The expected decrease in the number of classroom teachers in nonpublic elementary schools is due to the expected continued decrease in enrollments in Catholic elementary schools. The number of classroom teachers in nonpublic secondary schools is expected to remain about the same, as is the enrollment in these schools.

The projection of teachers in both public and nonpublic schools depends upon the projection of enrollments (table 4) and upon the projection of pupil-teacher ratios.

Pupil-teacher ratios (table 28)

The pupil-teacher ratios are projected separately for public elementary and secondary schools and for nonpublic elementary and secondary schools. For each category, the projection is based primarily on the assumption that the 1961 to 1971 trend will continue to 1981.

The pupil-teacher ratio projections for public elementary and secondary schools are also based on the assumption that the additional revenues needed to further reduce pupil-teacher ratios will not be as readily available during the next 10 years as they were during the past 10 years. Because of this assumption, public elementary and secondary pupil-teacher ratios were projected by means of a decreasing logistic growth curve with asymptotes (lower limits) of 20 pupils per teacher for public elementary schools and 18 pupils per teacher for public secondary schools.

The pupil-teacher ratios in nonpublic elementary schools have been decreasing throughout the sixties primarily due to the reduction of pupil-teacher ratios in Catholic elementary schools, which had previously been much higher than the ratios in public elementary schools. The projection of nonpublic elementary schools is based on the assumption that the pupil-teacher ratios in Catholic elementary schools will continue to decline and, as a result, the pupil-teacher ratios in nonpublic elementary schools will approach the lower pupil-teacher ratios in public elementary schools but that they will not become lower than the public ratios by 1981. Therefore, the pupil-teacher ratios in nonpublic elementary schools were projected by means of a decreasing logistic growth curve with an asymptote of 22 pupils per teacher, the 1981 projected pupil-teacher ratio in public elementary schools.

The projection of the pupil-teacher ratios in nonpublic secondary schools is based on the assumption that the ratios will remain constant at their 1971 level, since they have been at approximately this level over most of the past 10 years.

Demand for additional classroom teachers (tables 29, 30)

The total demand for additional public elementary and secondary school teachers (not employed in the public schools the previous year) includes those additional teachers needed to allow for enrollment changes, for lowering pupil-teacher ratios, and for replacement of teachers leaving the profession (turnover). During the period fall 1967 to fall 1971, the cumulative demand for additional public school teachers (including returnees to the profession) was estimated to be 1,046,000. It is expected to decrease to 882,000 from 1972 to 1976 and then increase to 931,000 from 1977 to 1981. This means that 1.8 million new teachers or returnees to the profession are expected to be employed by the public schools during the next 10 years, 1972 through 1981.

The projected demand for additional public school teachers is shown in table 29. The number of teachers necessary to take care of enrollment changes and pupil-teacher ratio changes was computed for each year as the difference between the total employed for the current year and the total employed for the previous year. The number for turnover was based on the assumption that 8 percent of the total classroom teachers will leave the profession temporarily or permanently each year[1].

The total demand for additional nonpublic school teachers was estimated to be 30,000 from 1967 to 1971. It is expected to decrease to 27,000 from 1972 to 1976 and then increase to 32,000 from 1977 to 1981.

The projected demand for additional nonpublic elementary and secondary school teachers is shown in table 30. The numbers for taking care of enrollment changes and pupil-teacher ratio changes were computed in the same manner as for public schools, and the number for turnover is based on the assumption that 4 percent (one-half the public school rate) of the nonpublic school teachers will leave the profession permanently or temporarily each year. This lower rate (4 percent) was assumed because large numbers of nonpublic school teachers belong to religious orders, where the turnover is presumably small.

Instructional staff (table 31)

Instructional staff in public elementary and secondary schools includes principals, supervisors, librarians, and guidance and psychological personnel, as well as classroom teachers. Instructional staff and classroom teachers are not reported separately for nonpublic schools. Since it is believed that the primary responsibility of most professional personnel employed by the nonpublic schools is classroom teaching, the number of instructional staff shown here is the same as the number of teachers.

Projected instructional staff is shown in table 31. Instructional staff in public elementary and secondary schools increased from 1.8 million in 1961 to 2.5 million in 1971 and is expected to be 2.6 million in 1981.

The public school instructional staff projection is based on the assumption that instructional staff as a percentage of classroom teachers will continue the 1961–71 trend to 1981. The ratio of total public school instructional staff to classroom teachers increased from 1.09 in 1961 to 1.11 in 1971 and is expected to remain at that level through 1981. The latter ratio was applied to the public classroom teacher figures shown in table 26 to obtain the projections of public instructional staff. Nonpublic school instructional staff, as previously stated, was assumed to be 100 percent of the classroom teachers shown in table 26.

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[1] U.S. Department of Health, Education, and Welfare, Office of Education, *Teacher Turnover in Public Elementary and Secondary Schools, 1959–60*, by Frank Lindenfeld. U.S. Government Printing Office, Washington, D.C., 1963.

Institutions of Higher Education

The faculty data for institutions of higher education shown in tables 32 to 34 are from: (1) reports in 1966 through 1968 on the number of persons by primary position; and (2) estimates from biennial reports, 1961–62 and 1963–64, on the number of positions. Since some positions overlap, with one person filling more than one position, the number of positions is greater than the number of persons. Therefore, the biennial data for 1961–62 and 1963–64 on positions were converted to persons in each year based on the ratio of positions to persons for total professional staff for each type and control of institution.

Instructional staff for resident courses (table 32)

Total full-time and part-time instructional staff for resident courses in all institutions of higher education (table 32) increased from 292,000 in 1961 to 603,000 in 1971 and is expected to be 800,000 in 1981. These figures include full-time and part-time instructors and above, and full-time and part-time junior instructional staff for instruction in resident courses. (Junior instructional staff includes assistant instructors, teaching fellows, teaching assistants, and laboratory assistants.)

The total of full-time and part-time instructional staff for resident courses was projected separately for publicly and privately controlled 4-year and 2-year institutions and the four results summed to obtain the total for all institutions. The projections are based on the assumption that student-staff ratios (number of students divided by number of staff) in each institutional control and type category will remain approximately at the 1968 level to 1981. To obtain the projections, projected enrollments in each of the institutional control and type categories (tables 7 and 8) were divided by the projected student-staff ratios in corresponding categories.

Full-time-equivalent instructional staff for resident courses (table 33)

Full-time-equivalent instructional staff for resident courses in all institutions increased from 214,000 in 1961 to 479,000 in 1971 and is expected to rise to 635,000 in 1981. These figures include full-time staff and full-time equivalent of part-time staff for instructor or above and junior instructional staff. In 1971, in all institutions, 91 percent of the full-time-equivalent instructional staff members with the rank of instructor or above were employed full time, and almost 34 percent of the full-time-equivalent junior instructional staff members were employed full time.

Demand for full-time-equivalent instructional staff (table 34)

During the past 5 years, 1967 through 1971, the total demand for additional full-time-equivalent instructional staff was 251,000. The totals are expected to be 243,000 in 1972 through 1976, and 248,000 in 1977 through 1981.

The demand for this additional staff is projected as the total of staff required for increased enrollment and student-staff ratio changes, and for replacement of those leaving the profession either temporarily or permanently. Full-time-equivalent staff required for increased enrollment and student-staff ratio changes is computed as the difference between the total number employed in successive years. Replacement requirements are estimated at 6 percent of the total number of full-time-equivalent staff employed in the previous year.

The assumption of a 6-percent replacement rate is based on unpublished data from a 1963 Office of Education study which showed that about 5 percent of the full-time instructors and above in 4-year institutions intended to leave employment in institutions of higher education during the following year. If we estimate an additional 1 percent for mortality, the annual replacement rate is then 6 percent.

Table 27.—Classroom teachers in regular elementary and secondary day schools, by institutional control and organizational level: United States, fall 1961 to 1981 [1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated) [2]		
	K–12	Elementary	Secondary	K–12	Elementary	Secondary	K–12	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1961	1,643	992	651	1,461	869	592	182	[3] 123	59
1962	1,708	1,021	686	1,508	886	621	200	135	65
1963	1,790	1,050	739	1,578	908	669	212	142	70
1964	1,865	1,086	779	1,648	940	708	217	146	71
1965	1,933	1,112	822	1,710	965	746	223	[3] 147	[3] 76
1966	2,016	1,156	860	1,789	1,006	783	227	150	77
1967	2,081	1,189	892	1,855	1,040	815	226	149	77
1968	2,161	1,223	938	1,936	1,076	860	225	[3] 147	[3] 78
1969	2,233	1,253	980	2,014	1,108	906	219	145	74
1970	2,278	1,278	1,000	2,061	1,132	929	217	[3] 146	[3] 71
1971	2,275	1,279	996	2,063	[4] 1,138	[4] 925	212	141	71
	PROJECTED [5]								
1972	2,297	1,274	1,023	2,086	1,134	952	211	140	71
1973	2,308	1,264	1,044	2,098	1,125	973	210	139	71
1974	2,309	1,252	1,057	2,102	1,116	986	207	136	71
1975	2,307	1,244	1,063	2,105	1,113	992	202	131	71
1976	2,308	1,244	1,064	2,109	1,116	993	199	128	71
1977	2,313	1,259	1,054	2,116	1,133	983	197	126	71
1978	2,315	1,277	1,038	2,121	1,154	967	194	123	71
1979	2,327	1,313	1,014	2,136	1,193	943	191	120	71
1980	2,351	1,362	989	2,159	1,241	918	192	121	71
1981	2,381	1,411	970	2,188	1,289	899	193	122	71

[1] Includes full-time and the full-time equivalent of part-time classroom teachers (in 1971, 99 percent of teachers in the public schools were full time). Prior to 1969, the data include some part-time teachers that were not converted to full-time equivalents. Does not include teachers in independent nursery and kindergarten schools, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Instructional staff and classroom teachers are not reported separately. All data unless otherwise indicated are estimated. Estimates through 1964 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Reported data from Office of Education surveys.

[4] Estimated. See appendix A, "Estimation Methods," section 4.

[5] The projection of teachers in both public and nonpublic schools depends upon the projection of enrollments (table 4) and upon the projection of pupil-teacher ratios (table 28).

For further methodological details, see appendix A, table A–3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Classroom teacher data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Statistics of Public Schools*, fall 1964 through 1971; (2) *Enrollment, Teachers, and Schoolhousing*, fall 1961 through 1963; (3) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*; (4) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69*; (5) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66*; (6) *Nonpublic School Enrollment in Grades 9–12, Fall 1964, and Graduates, 1963–64*; (7) *Statistics of Nonpublic Elementary Schools, 1961–62*; and (8) *Statistics of Nonpublic Secondary Schools, 1960–61*.

Table 28.—Pupil-teacher ratios in regular elementary and secondary day schools, by institutional control and organizational level: United States, fall 1961 to 1981 [1]

Year (fall)	Public		Nonpublic (estimated) [2]	
	Elementary	Secondary	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)
1961	28.3	21.7	[3] 37.4	18.6
1962	28.5	21.7	36.3	18.5
1963	28.4	21.5	35.3	18.5
1964	27.9	21.5	34.3	18.4
1965	27.6	20.8	[3] 33.3	[3] 18.4
1966	27.0	20.4	32.1	18.2
1967	26.3	20.3	30.9	18.1
1968	25.4	20.5	[3] 29.7	[3] 17.4
1969	24.8	20.0	28.9	17.6
1970	24.3	19.8	[3] 28.1	[3] 18.3
1971	[4] 24.3	[4] 19.9	27.6	18.3
	PROJECTED [5]			
1972	24.0	19.7	27.1	18.3
1973	23.7	19.6	26.7	18.3
1974	23.5	19.5	26.4	18.3
1975	23.2	19.4	26.0	18.3
1976	23.0	19.3	25.7	18.3
1977	22.8	19.2	25.4	18.3
1978	22.7	19.1	25.2	18.3
1979	22.5	19.0	24.9	18.3
1980	22.3	18.9	24.7	18.3
1981	22.2	18.8	24.5	18.3

[1] Includes full-time and the full-time equivalent of part-time classroom teachers (in 1971, 99 percent of teachers in the public schools were full time). Prior to 1969 the data include some part-time teachers that were not converted to full-time equivalents. Does not include teachers in independent nurseries and kindergarten schools, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Instructional staff and classroom teachers are not reported separately. All data unless otherwise indicated are estimated. Estimates through 1964 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Reported data from Office of Education surveys.

[4] Estimated. See appendix A, "Estimation Methods," section 4.

[5] The projections of pupil-teacher ratios in public elementary and secondary schools and in nonpublic elementary schools are based on the assumption that the ratio of enrollment to the number of teachers will follow the 1961–71 trend to 1981.

The projection of pupil-teacher ratios in nonpublic secondary schools is based on the assumption that the 1970 pupil-teacher ratio will remain constant to 1981.

Decreases in the pupil-teacher ratios in public elementary and secondary schools due to the Elementary and Secondary Education Act of 1965 are included in the trend projections.

For further methodological details, see appendix A, table A–3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Classroom teacher data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Statistics of Public Schools*, fall 1964 through 1971; (2) *Enrollment, Teachers, and Schoolhousing*, fall 1961 through 1963; (3) pre-

publication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71;* (4) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69;* (5) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66;* (6) *Statistics of Nonpublic Elementary Schools, 1961–62;* and (7) *Statistics of Nonpublic Secondary Schools, 1960–61.*

Table 29.—Estimated demand for classroom teachers in regular public elementary and secondary day schools: United States, fall 1966 to 1981 [1]

[In thousands]

Year (fall)	Total Teacher demand	Demand for additional certificated teachers [2]			
		Total	For enrollment changes	For pupil-teacher ratio changes	For teacher turnover
(1)	(2)	(3)	(4)	(5)	(6)
1966	1,789	—	—	—	—
1967	1,855	209	43	23	143
1968	1,936	229	51	30	148
1969	2,014	233	35	43	155
1970	2,061	208	15	32	161
1971	2,063	167	6	—4	165
1967–71	—	1,046	150	124	772
	PROJECTED [3]				
1972	2,086	188	—	23	165
1973	2,098	179	—7	19	167
1974	2,102	172	—11	15	168
1975	2,105	171	—16	19	168
1976	2,109	172	—10	14	168
1972–76	—	882	—44	90	836
1977	2,116	176	—8	15	169
1978	2,121	174	—5	10	169
1979	2,136	185	—	15	170
1980	2,159	194	8	15	171
1981	2,188	202	18	11	173
1977–81	—	931	13	66	852

[1] Includes full-time and the full-time equivalent of part-time classroom teachers (in 1970, 99 percent of teachers in the public schools were full time). Prior to 1969, the data include some part-time teachers that were not converted to full-time equivalents. Does not include teachers in independent nurseries and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] The estimates and projections of demand for additional certificated teachers were based on the following assumptions: (1) For changes in pupil-teacher ratios, the number of additional teachers needed is the total teacher demand in a given year less the estimated total teacher demand in the same year had the pupil-teacher ratio in the previous year remained constant; (2) for enrollment changes, the number of additional teachers needed is the total needed for both enrollment changes and pupil-teacher ratio changes less the number needed for pupil-teacher ratio changes alone (the number of additional teachers needed for both enrollment changes and pupil-teacher ratio changes is the total teacher demand in a given year less the total teacher demand in the previous years); and (3) for teacher turnover, the number of additional teachers needed to replace those leaving the profession either temporarily or permanently will be 8 percent of the total employed in the previous year. The 8-percent separation rate is based on the Office of Education study *Teacher Turnover in Public Elementary and Secondary Schools, 1959-60*.

The projected demand makes no allowance for replacement of teachers who hold substandard certificates (about 5 percent of employed teachers in 1969).

[3] The projection of classroom teachers in public schools by organizational level and institutional control is based on the assumption that the

pupil-teacher ratio will follow the 1961–71 trend to 1981.

For further methodological details, see appendix A, table A–3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Statistics of Public Schools*, fall 1964 through 1971; and (2) *Enrollment, Teachers, and Schoolhousing*, 1961 through 1963.

Table 30.—Estimated demand for classroom teachers in regular nonpublic elementary and secondary day schools: United States, fall 1966 to 1981

[In thousands]

Year (fall)	Total teacher demand	Demand for additional certificated teachers [1]			
		Total	For enrollment changes	For pupil-teacher ratio changes	For teacher turnover
(1)	(2)	(3)	(4)	(5)	(6)
1966	227	.....	.....	.....	.....
1967	226	8	—7	6	9
1968	225	8	—7	6	9
1969	219	3	—9	3	9
1970	217	7	—3	1	9
1971	212	4	—7	2	9
1967–71	.....	30	—33	18	45
		PROJECTED			
1972	211	7	—3	2	8
1973	210	7	—3	2	8
1974	207	5	—4	1	8
1975	202	3	—7	2	8
1976	199	5	—4	1	8
1972–76	.....	27	—21	8	40
1977	197	6	—3	1	8
1978	194	5	—4	1	8
1979	191	5	—4	1	8
1980	192	7	—2	1	8
1981	193	9	—	1	8
1977–81	.....	32	—13	5	40

[1] The estimates and projections of demand for additional certificated teachers were based on the following assumptions: (1) For changes in pupil-teacher ratios, the number of additional teachers needed is the total teacher demand in a given year less the estimated total teacher demand in the same year had the pupil-teacher ratio in the previous year remained constant; (2) for enrollment changes, the number of additional teachers needed is the total needed for both enrollment changes and pupil-teacher ratio changes less the number needed for pupil-teacher ratio changes alone (the number of additional teachers needed for both enrollment changes and pupil-teacher ratio changes is the total teacher demand in a given year less the total teacher demand in the previous year); and (3) for teacher turnover, the number of additional teachers needed to replace those leaving the nonpublic schools either temporarily or permanently is assumed to be 4 percent of the total employed in the previous year.

For further methodological details, see appendix A, table A–3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) Prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*; (2) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69*; (3) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66*; (4) *Statistics of Nonpublic Elementary Schools, 1961–62*; and (5) *Statistics of Nonpublic Secondary Schools, 1960–61*.

Table 31.—Estimated instructional staff in regular elementary and secondary day schools, by institutional control: United States, fall 1961 to 1981 [1]

[In thousands]

Year (fall)	Total	Public schools	Nonpublic schools [2]
(1)	(2)	(3)	(4)
1961	1,770	1,588	182
1962	1,841	1,641	200
1963	1,929	1,717	212
1964	2,030	1,813	217
1965	2,108	1,885	223
1966	2,211	1,984	227
1967	2,297	2,071	226
1968	2,382	2,157	225
1969	2,459	2,240	219
1970	2,507	2,290	217
1971	2,500	2,288	212
	PROJECTED [3]		
1972	2,526	2,315	211
1973	2,539	2,329	210
1974	2,540	2,333	207
1975	2,539	2,337	202
1976	2,540	2,341	199
1977	2,546	2,349	197
1978	2,548	2,354	194
1979	2,562	2,371	191
1980	2,588	2,396	192
1981	2,622	2,429	193

[1] Instructional staff includes principals, supervisors, librarians, and guidance and psychological personnel, as well as full-time and the full-time equivalent of part-time classroom teachers. (In 1971, 99 percent of classroom teachers were full time.) Prior to 1969, the data include some part-time teachers that were not converted to full-time equivalents. Does not include instructional staff in independent nursery and kindergarten schools, residential schools for exceptional children, subcollegiate departments of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Instructional staff and classroom teachers are not reported separately. All data are wholly or partially estimated. Estimates through 1964 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Projections of instructional staff in public schools are based on the assumption that the ratio of instructional staff to classroom teachers will remain constant at the 1971 level.

For further methodological details, see appendix A, table A–3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Instructional staff data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Statistics of Public Schools, Fall 1971;* (2) *Statistics of State School Systems,* biennial, 1961–62 through 1967–68; (3) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71;* (4) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69;* (5) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66;* (6) *Statistics of Nonpublic Elementary Schools, 1961–62;* and (7) *Statistics of Nonpublic Secondary Schools, 1960–61.*

Table 32.—Estimated full-time and part-time instructional staff for instruction in resident courses in all institutions of higher education, by professional rank: United States, fall 1961 to 1981 [1]

[In thousands]

Year (fall)	Total	Instructor or above			Junior instructor		
		Total	Full time	Part time	Total	Full time	Part time
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	292	248	162	86	44	9	35
1962 [2]	312	265	173	92	47	10	37
1963	331	281	184	97	50	10	40
1964 [2]	367	307	212	95	60	12	48
1965 [2]	412	339	248	91	73	15	58
1966	445	361	278	83	84	17	67
1967	484	389	299	90	95	14	81
1968	523	427	331	95	96	16	80
1969	551	449	350	99	102	17	85
1970	585	477	372	105	108	18	90
1971	603	492	384	108	111	19	92
PROJECTED [3]							
1972	620	506	395	111	114	19	95
1973	643	525	410	115	118	20	98
1974	668	545	425	120	123	21	102
1975	692	564	440	124	128	22	106
1976	715	583	455	128	132	22	110
1977	736	600	468	132	136	23	113
1978	757	618	482	136	139	24	115
1979	772	630	491	139	142	24	118
1980	787	642	501	141	145	25	120
1981	800	653	509	144	147	25	122

[1] For method of estimating instructional staff, see appendix A, "Estimation Methods," sections 5a–5c.

[2] Interpolated.

[3] The projection of total full-time and part-time instructional staff for resident courses was computed separately by control and type of institutions and then summed for all institutions. For each category the projection is based primarily on the assumption that the ratio of total enrollment to total instructional staff for resident courses will remain constant at the 1968 level through 1981.

The projections of instructional staff for full-time instructor or above, part-time instructor or above, full-time junior instructor, and part-time junior instructor are based on the percentage that each type of position was of total full-time and part-time instructional staff for resident courses in 1968. These percentages were 63.7, 18.0, 3.1, and 15.2, respectively, and are assumed to remain at the 1968 level to 1981.

For methodological details, see appendix A, table A–3.

NOTE.—Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Faculty and Other Professional Staff in Institutions of Higher Education*, biennially, first term 1961–62 and 1963–64; (2) *Numbers and Characteristics of Employees in Institutions of Higher Education*, fall 1966 and 1967; and (3) *Teaching and Research Staff by Academic Fields, Fall 1968*.

Table 33.—Estimated full-time-equivalent instructional staff for resident courses in all institutions of higher education, by professional rank: United States, fall 1961 to 1981 [1]

[In thousands]

Year (fall)	Estimated total full-time equivalent	Instructor or above			Junior instructor		
		Total	Full time	Full-time equivalent of part time	Total	Full time	Full-time equivalent of part time
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	214	191	163	29	23	9	14
1962 [2]	228	203	173	30	25	10	15
1963	242	216	184	32	26	10	16
1964 [2]	274	243	212	31	31	12	19
1965 [2]	317	279	248	31	38	15	23
1966	351	307	278	29	44	17	27
1967	378	331	299	32	47	14	33
1968	413	364	331	33	49	16	33
1969	437	385	350	35	52	17	35
1970	464	409	372	37	55	18	37
1971	479	422	384	38	57	19	38
PROJECTED [3]							
1972	492	434	395	39	58	19	39
1973	511	451	410	41	60	20	40
1974	530	467	425	42	63	21	42
1975	549	484	440	44	65	22	43
1976	567	500	455	45	67	22	45
1977	584	515	468	47	69	23	46
1978	601	530	482	48	71	24	47
1979	612	540	491	49	72	24	48
1980	625	551	501	50	74	25	49
1981	635	560	509	51	75	25	50

[1] Estimated. See appendix A, "Estimation Methods," sections 5a-5d.

[2] Interpolated.

[3] The projection of full-time equivalent of part-time instructional staff for resident courses is based on the following assumptions: (1) Full-time equivalent of part-time instructor or above will remain constant to 1981 at the 1967 level of 35 percent, and (2) full-time equivalent of junior instructional staff will remain constant to 1981 at the 1967 level of 41 percent.

For methodological details, see appendix A, table A-3.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Faculty and Other Professional Staff in Institutions of Higher Education*, biennially, first term 1959-60 to 1963-64; (2) *Numbers and Characteristics of Employees in Institutions of Higher Education*, fall 1966 and 1967; and (3) *Teaching and Research Staff by Academic Fields*, fall 1968.

Table 34.—Estimated demand for full-time-equivalent instructional staff in institutions of higher education: United States, fall 1966 to 1981

[In thousands]

Year (fall)	Full-time-equivalent instructional staff [1]	Additional full-time-equivalent instructional staff needed		
		Total	For increased enrollment and changes of student-staff ratio	For replacement
(1)	(2)	(3)	(4)	(5)
1966	351			
1967	378	48	27	21
1968	413	58	35	23
1969	437	49	24	25
1970	464	53	27	26
1971	479	43	15	28
1967-71	—	251	128	123
		PROJECTED [2]		
1972	492	42	13	29
1973	511	49	19	30
1974	530	50	19	31
1975	549	51	19	32
1976	567	51	18	33
1972-76	—	243	88	155
1977	584	51	17	34
1978	601	52	17	35
1979	612	47	11	36
1980	625	50	13	37
1981	635	48	10	38
1977-81	—	248	68	180

[1] For method of estimating and projecting full-time equivalent instructional staff, see table 32, footnotes 2 and 3.

[2] The projection of additional full-time-equivalent professional staff for increased enrollment and for reduction of the student-staff ratio was computed as the difference between the total full-time-equivalent professional staff employed in 2 successive years.

The projection of additional full-time-equivalent professional staff for replacement of those leaving the profession, temporarily or permanently, was estimated at 6 percent of the total full-time-equivalent professional staff employed in the previous year.

For methodological details, see appendix table A-3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Faculty and Other Professional Staff in Institutions of Higher Education*, biennially, first term 1961-62 and 1963-64, (2) *Numbers and Characteristics of Employees in Institutions of Higher Education*, fall 1966 and 1967, and (3) *Teaching and Research Staff by Academic Fields*, fall 1968.

CHAPTER V

Expenditures of Educational Institutions

Forrest W. Harrison and C. George Lind

Explanations and Definitions

The main tables in this chapter include only expenditures of regular public and nonpublic elementary and secondary schools and institutions of higher education in the 50 States and the District of Columbia. This means that "other" and "special" institutions are not included.

"Other" institutions include elementary and secondary residential schools for exceptional children (public and nonpublic), Federal schools for Indians (public), and federally operated elementary and secondary schools on military posts (public). In 1971–72, it is estimated that expenditures of "other" schools were about $200 million for public and $100 million for nonpublic schools in this category. Almost all "other" schools, including the nonpublic, are nonprofitmaking institutions.

"Special" institutions include schools such as trade schools or business colleges not in the regular school or college framework. Expenditure data are not available for "special" schools, but it is estimated that they spend approximately $1.2 billion per year. This estimate is based on a U.S. Bureau of the Census estimate that approximately 1.4 million persons aged 5 to 34 years were enrolled in "special" schools in October 1971.[1] If an average expenditure per student of about $900 is assumed, the total expenditures for these schools would be about $1.2 billion. Almost all "special" schools are nonpublic profitmaking institutions.

Regular institutions include public and most nonprofitmaking nonpublic elementary and secondary schools (kindergarten through grade 12), plus the institutions of higher education offering degree-credit courses, and a small number of technical and professional schools. Most of these schools and colleges are oriented toward regular academic programs, but some of them are primarily technical training institutions or offer both academic and vocational courses. As noted, the main tables and discussions here are for these regular institutions. However, "other" schools are included in the discussion and table on pages 78 and 79 through 84.

Total expenditures include all funds expended for capital outlay, current expenditures, and interest. They exclude repayment of debt and transfers of funds that would result in duplication.

Capital outlay includes expenditures which result in additions to plant assets; this includes the expenditures by public school building authorities but excludes lease or rental payments made to these agencies. Borrowed money is included; a large percentage of the funds expended for capital outlay was received from loans. In 1969–70, it is estimated that 87 percent of the capital outlay for public elementary and secondary schools was for land and buildings; the remaining 13 percent, for new school buses and other equipment. The proportion for equipment could be higher than 13 percent in 1971–72 because a substantial amount of the funds available from the Elementary and Secondary Education Act of 1965 has been spent for equipment. About 82 percent of the capital outlay by institutions of higher education during 1969–70 was for land and buildings; the remaining 18 percent, for equipment.

Current expenditures include any expenditures except those for repayment of debt and capital outlay. Interest is generally excluded from the current expenditures shown here because it is treated separately. The largest current expense item is salaries of instructional staff, accounting for about 61 percent of current expenditures. The remaining 39 percent goes for transportation, maintenance, etc.

Interest includes all funds expended for the use of money. Most of the interest shown here was expended on account of long-term debt that was incurred for constructing buildings.

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[1] U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "School Enrollment: October 1971," Series P-20, No. 241, 1972.

Expenditures by source of funds

Regular and "other" schools

Although no attempt was made to project amounts of funds from the various sources to be expended by educational institutions, estimates are shown by source for the past 10 years. To do this, estimates for "other" schools were added to the total expenditures shown in table 36 for the appropriate years. The resulting total expenditures for regular and "other" schools were then broken down by source of funds by first adjusting receipts to equate them with expenditures and then assuming a continuation of the 1961-62 through 1969-70 trend in the amount of receipts from each source. Receipts and expenditures were equated mainly by including loans and excluding the receipts used for repayment of loans.

Total expenditures are defined as the expenditure of all money from both loans and grants and exclude only the funds used for reducing debt and transfers that result in duplication. Expenditures from Federal, State, and local sources are defined as institutional expenditures of all grants (but not loans) of funds received from these sources. Expenditures from all other sources include all funds received by the institutions that were not received as grants from Federal, State, and local governments. Loans to institutions of higher education from any source are included under "all other." (It is estimated that in 1971-72, $50 million in Federal loans to institutions of higher education was included in the "all other" category shown here.)

Since the foregoing definitions are designed to show sources of funds through the eyes of educational institutions, the Federal figures shown in the preceding table are different from those shown in appendix B, table B-8, on Federal funds for education. The three main reasons are as follows:

(1) Different items are included. For example, the table on Federal funds in appendix B shows grants and loans to individuals, which would appear in institutional accounts here as receipts from tuition or auxiliary services, or the money may be spent for board and room outside the institution and not be a receipt of the institution from any source.

(2) The same items may be handled differently. For example, the table on Federal funds shows only basic research for institutions of higher education; the institutions include some applied research grants from the Federal Government.

(3) The table on Federal funds generally shows obligated funds; the institutional figures show expenditures.

Total expenditures

Regular institutions (table 35)

Total annual expenditures of regular educational institutions (in 1971–72 dollars) increased from $42.3 billion in 1961–62 to $83.5 billion in 1971–72 and are expected to be $115.7 billion in 1981–82. The expenditure increases are caused chiefly by increases in enrollment at all levels of education, especially in high schools and colleges, and the increasing costs of the many items, such as school facilities and salaries of teachers, that are necessary for providing education. The projected total expenditures are shown in table 35. They are based mainly on the assumption that the 1961–62 to 1971–72 trend will continue through 1981–82.

Regular public elementary and secondary schools (tables 35, 37)

Current expenditures

Annual current expenditures for public elementary and secondary schools (in 1971–72 dollars) increased from $20.4 billion in 1961–62 to $41.9 billion in 1971–72, an increase of 105 percent. They are expected to increase 36 percent to $57.1 billion by 1981–82.

Increased enrollment together with increased expenditures per pupil have accounted for the increase in current expenditures. Expenditures have been increasing and are expected to continue to increase for practically all of the major items included in current expenditures, such as administration, instruction, operation and maintenance of plant, fixed charges, and other school services and programs. Annual current expenditures per pupil (in 1971–72 dollars) increased from $569 in 1961–62 to $934 in 1971–72 and are expected to increase to $1,303 by 1981–82.

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1961–62 to 1972–73 [1]

Source of funds, by control and level	1961–62	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	AMOUNT, in billions of current dollars							
All levels:								
Total, public and nonpublic	$29.5	$35.9	$45.2	$57.2	$70.0	$76.9	$83.8	$90.2
Federal	2.5	3.3	5.1	6.8	7.7	8.4	9.1	10.2
State	8.7	10.6	13.1	16.8	22.5	24.8	27.2	29.4
Local	11.2	12.7	15.0	18.6	21.9	24.1	26.3	27.6
All other	7.1	9.3	12.0	15.0	17.9	19.6	21.2	23.0
Total, public	23.4	28.0	35.3	45.5	56.6	62.7	68.7	74.1
Federal	1.7	2.2	3.7	5.1	6.0	6.7	7.3	8.3
State	8.6	10.5	13.0	16.7	22.4	24.6	27.0	29.2
Local	11.2	12.7	15.0	18.6	21.8	24.0	26.2	27.5
All other	1.9	2.6	3.6	5.1	6.4	7.4	8.2	9.1
Total, nonpublic	6.1	7.9	9.9	11.7	13.4	14.2	15.1	16.1
Federal	.8	1.1	1.4	1.7	1.7	1.7	1.8	1.9
State	.1	.1	.1	.1	.1	.2	.2	.2
Local	(2)	(2)	(2)	(2)	.1	.1	.1	.1
All other	5.2	6.7	8.4	9.9	11.5	12.2	13.0	13.9
Elementary and secondary schools:								
Total, public and nonpublic	21.0	24.6	30.0	37.3	45.3	49.5	53.9	57.7

See footnotes at end of table

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1961–62 to 1972–73 [1]—Continued

Source of funds, by control and level	1961–62	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	AMOUNT, in billions of current dollars							
Federal	$0.9	$1.1	$2.2	$3.0	$3.6	$4.0	$4.3	$5.1
State	6.7	8.0	9.6	12.1	16.1	17.5	19.2	20.8
Local	11.0	12.4	14.6	18.0	21.0	23.1	25.2	26.3
All other	2.4	3.1	3.6	4.2	4.6	4.9	5.2	5.5
Total, public [3]	18.7	21.6	26.5	33.2	40.8	44.7	48.8	52.3
Federal	.9	1.1	2.2	3.0	3.6	4.0	4.3	5.1
State	6.7	8.0	9.6	12.1	16.1	17.5	19.2	20.8
Local	11.0	12.4	14.6	18.0	21.0	23.1	25.2	26.3
All other	.1	.1	.1	.1	.1	.1	.1	.1
Total, nonpublic	2.3	3.0	3.5	4.1	4.5	4.8	5.1	5.4
Federal	.....	.....	.....	.....	.....	.....	.....	.....
State	.....	.....	.....	.....	.....	.....	.....	.....
Local	.....	.....	.....	.....	.....	.....	.....	.....
All other	2.3	3.0	3.5	4.1	4.5	4.8	5.1	5.4
Institutions of higher education:								
Total, public and nonpublic	8.5	11.3	15.2	19.9	24.7	27.4	29.9	32.5
Federal	1.6	2.2	2.9	3.8	4.1	4.4	4.8	5.1
State	2.0	2.6	3.5	4.7	6.4	7.3	8.0	8.6

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1961–62 to 1972–73 [1]—Continued

Source of funds, by control and level	1961–62	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	AMOUNT, in billions of current dollars							
Local	$ .2	$ .3	$ .4	$ .6	$ .9	$ 1.0	$ 1.1	$ 1.3
All other	4.7	6.2	8.4	10.8	13.3	14.7	16.0	17.5
Total, public [3]	4.7	6.4	8.8	12.3	15.8	18.0	19.9	21.8
Federal	.8	1.1	1.5	2.1	2.4	2.7	3.0	3.2
State	1.9	2.5	3.4	4.6	6.3	7.1	7.8	8.4
Local	.2	.3	.4	.6	.8	.9	1.0	1.2
All other	1.8	2.5	3.5	5.0	6.3	7.3	8.1	9.0
Total, nonpublic [3]	3.8	4.9	6.4	7.6	8.9	9.4	10.0	10.7
Federal	.8	1.1	1.4	1.7	1.7	1.7	1.8	1.9
State	.1	.1	.1	.1	.1	.2	.2	.2
Local	([2])	([2])	([2])	([2])	.1	.1	.1	.1
All other	2.9	3.7	4.9	5.8	7.0	7.4	7.9	8.5
	PERCENT							
All levels:								
Total, public and nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	8.5	9.2	11.3	11.9	11.0	10.9	10.8	11.3
State	29.5	29.5	29.0	29.4	32.1	32.3	32.5	32.6

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1961–62 to 1972–73 [1]—Continued

Source of funds, by control and level	1961–62	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				PERCENT				
Local	37.9	35.4	33.2	32.5	31.3	31.3	31.4	30.6
All other	24.1	25.9	26.5	26.2	25.6	25.5	25.3	25.5
Total, public	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	7.3	7.9	10.5	11.2	10.6	10.7	10.6	11.2
State	36.7	37.5	36.8	36.7	39.6	39.2	39.3	39.4
Local	47.9	45.3	42.5	40.9	38.5	38.3	38.2	37.1
All other	8.1	9.3	10.2	11.2	11.3	11.8	11.9	12.3
Total, nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	13.1	13.9	14.1	14.5	12.7	12.0	11.9	11.8
State	1.6	1.3	1.0	.9	.7	1.4	1.3	1.3
Local	([4])	([4])	([4])	([4])	.7	.7	.7	.6
All other	85.3	84.9	84.9	84.6	85.9	85.9	86.1	86.3
Elementary and secondary schools:								
Total, public and nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	4.3	4.5	7.3	8.0	7.9	8.1	8.0	8.8
State	31.9	32.5	32.0	32.4	35.5	35.3	35.6	36.1

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1961–62 to 1972–73 [1]—Continued

Source of funds, by control and level	1961–62	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PERCENT							
Local	52.4	50.4	48.7	48.3	46.4	46.7	46.8	45.6
All other	11.4	12.6	12.0	11.3	10.2	9.9	9.6	9.5
Total, public	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	4.8	5.1	8.3	9.0	8.8	8.9	8.8	9.8
State	35.8	37.0	36.2	36.5	39.5	39.2	39.4	39.7
Local	58.8	57.4	55.1	54.2	51.5	51.7	51.6	50.3
All other	.6	.5	.4	.3	.2	.2	.2	.2
Total, nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal								
State								
Local								
All other	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Institutions of higher education:								
Total, public and nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	18.8	19.5	19.1	19.1	16.6	16.1	16.0	15.7
State	23.5	23.0	23.0	23.6	25.9	26.6	26.8	26.5

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1961–62 to 1972–73 [1]—Continued

Source of funds, by control and level	1961–62	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PERCENT							
Local	2.4	2.6	2.6	3.0	3.6	3.6	3.7	4.0
All other	55.3	54.9	55.3	54.3	53.9	53.7	53.5	53.8
Total, public [3]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	16.0	16.9	17.6	17.1	15.0	14.9	14.9	14.8
State	41.2	39.7	38.4	37.7	40.0	39.6	39.2	38.7
Local	4.2	4.3	4.1	4.5	5.1	5.2	5.3	5.3
All other	38.6	39.1	39.9	40.7	39.9	40.3	40.6	41.2
Total, nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	20.5	23.1	22.1	21.8	18.8	18.7	18.6	18.5
State	1.5	1.3	1.5	1.2	1.6	1.6	1.6	1.6
Local	.2	.2	.1	.3	.7	.7	.8	.8
All other	77.8	75.4	76.3	76.7	78.9	79.0	79.0	79.1

[1] In addition to regular schools (shown separately in table 36) these figures include "other" elementary and secondary schools such as residential schools for exceptional children, Federal schools for Indians, and federally operated elementary and secondary schools on military posts. The annual expenditures of "other" elementary and secondary schools were estimated as follows: Public, $200 million annually, 1961–62 to 1972–73; nonpublic, less than $50 million for 1961–62 and $100 million annually, 1963–64 to 1972–73.

[2] Less than $50 million.

[3] Total expenditures distributed according to the trend of receipts shown in appendix B, table B–7. See text for more complete explanation.

[4] Less than 0.05 percent.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: Data for the table above were based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Statistics of State School Systems*, 1961–62, 1963–64, 1965–66, 1967–68, and 1969–70; (2) *Statistics of Public Schools*, fall 1964, 1965, 1966, 1967, 1968, 1969, 1970, and 1971; (3) *Current Expenditures by Local Education Agencies for Free Public Elementary and Secondary Education, 1970–71*; (4) *Financial Statistics of Higher Education*, 1961–62, 1963–64, 1965–66, 1966–67, 1967–68, and 1968–69; and unpublished data in the U.S. Office of Education.

Projected current expenditures for public elementary and secondary schools are shown in table 37. They were projected as follows:

(1) Current expenditures per pupil in average daily attendance (ADA) for the base years 1961–62 to 1971–72 were converted to 1971–72 dollars on the basis of the Consumer Price Index prepared by the Bureau of Labor Statistics, U.S. Department of Labor. Monthly index numbers were averaged on a July–June basis to correspond to the school years.

(2) The current expenditures per pupil for the years 1961–62 to 1971–72 were used in deriving a formula (by least squares) for projecting trend figures for 1972–73 to 1981–82. This formula was $y' = \$528 + \$37(t)$ (t=time in years, t=1 in 1961–62).

(3) Average daily attendance was calculated for 1972–73 to 1981–82 by assuming that the ratio of average daily attendance to projected fall enrollment in kindergarten through grade 12 will remain constant at 0.925 through 1975–76 and 0.926 for 1976–77 through 1981–82, based on the projection of the trend of the past 11 years.

(4) Total current expenditures allocated to public elementary and secondary school pupil costs (1971–72 dollars) were projected to 1981–82 by multiplying the current expenditures per pupil, as projected in step (2), by the corresponding average daily attendance projected in step (3). These figures exclude expenditures for summer schools, adult education, and community colleges operated by school districts.

(5) Total current expenditures for all programs operated by school districts—including summer schools, adult education, and community colleges—were projected to 1981–82 by assuming that current expenditures for all programs will remain constant at the rate of 104 percent of current expenditures allocated for public elementary and secondary school pupil costs.

(6) Current expenditures per pupil allocated to public elementary and secondary pupil costs were projected to 1981–82 by assuming that the trend of 1961–62 through 1971–72 will continue through 1981–82.

(7) Total current expenditures allocated to pupil costs were projected by multiplying the current expenditures per pupil, as projected in step (6), by the corresponding average daily attendance projected in step (3).

(8) Total current expenditures for all programs operated by school districts were projected by multiplying the figures in step (7) by 104 percent.

Salaries of instructional staff (tables 38, 31)

A large part of current expenditures for public elementary and secondary schools is for salaries of instructional staff (amounting to 61 percent in 1967–68). Total expenditures for these salaries (in 1971–72 dollars) increased from $12.6 billion in 1961–62 to $23.1 billion in 1971–72, and are expected to be $30.1 billion in 1981–82. These increases are due to larger numbers of instructional staff and to higher average annual salaries.

The average annual salary of instructional staff (in 1971–72 dollars) increased from $7,922 in 1961–62 to $10,100 in 1971–72 and is expected to be $12,400 in 1981–82. During the past 10 years, the average annual salary has been increasing about $227 per year in 1971–72 dollars. The projected figure for 1981–82 ($12,400) is based on the assumption that the 1961–62 to 1971–72 trend will continue to 1981–82.

Projected total and average annual salaries of instructional staff in public elementary and secondary schools are shown in table 38. The procedure was as follows:

The average annual salary (y) was projected as a continuation of the 1961–62 to 1971–72 trend: $y' = \$7{,}545 + 232(t)$; (t=time in years, t=1 in 1961–62).

Total expenditures for salaries of instructional staff were then computed as the product of the average annual salary and the total number of instructional staff. (The total number of instructional staff was taken from table 31.)

Classroom construction and capital outlay (table 39)

Capital outlay (in 1971–72 dollars) by regular public elementary and secondary schools, including the expenditures of State and local school building authorities, was $27.8 billion for the 5-year period 1962–63 to 1966–67, and $28.6 billion for the following 5-year period 1967–68 to 1971–72. It is expected to be $25.5 billion for 1972–73 to 1976–77 and $25.5 billion for 1977–78 to 1981–82.

Projected expenditures for capital outlay together with projections of classroom construction are shown in table 39. They are not projections of need but are simply projections of the classroom construction and capital outlay expected in the light of the 1961–62 to 1971–72 trend and other factors. The procedure was as follows:

(1) The total number of rooms to be completed was estimated on the basis of the 1961–62 to 1971–72 trend which seemed to be declining to about 60,000 rooms per year. The basic data and projections are shown in table 39.

(2) Capital outlay was projected by multiplying the number of rooms to be completed by the projected capital outlay per room which was held constant at the level of $85,000 per room (1971–72 dollars). There seems to be a ceiling on the amount of money available for capital outlay expenditures, and it was held constant at $5.1 billion per year.

The basic data and projections are shown in table 39.

It should be noted that not all the capital outlay shown here represents construction. It was estimated that, in 1969–70, 13 percent of capital outlay was for equipment, and 87 percent for land and buildings.

A sharp decrease in the number of rooms to be completed may be expected on account of enrollment increases and a sharp increase in the number completed for other reasons. Other reasons include: (1) replacements (abandonments), (2) migration factors (including school district reorganization), and (3) reduction of crowded and unsatisfactory rooms. Data limitations do not permit an exact analysis of these three factors. Since there are some indications that the number of crowded and unsatisfactory rooms did not change substantially during the period of time between the studies of 1962 and 1964–65 (see table below), it seems safe to assume that almost all of the rooms built during that time were used to take care of migration factors. That the number of crowded and unsatisfactory rooms was not reduced during the 3-year period is indicated in Office of Education studies on school facilities for 1962 and 1964–65.[2] The following information was selected from those two studies:

Item	1962	1964–65
Number of additional public school classrooms needed:		
To eliminate off-site	6,000	14,000
To eliminate nonpermanent	31,000	31,000
To eliminate improvised or makeshift	28,000	31,000
To eliminate rooms in buildings with four or more defects	NA	158,000
To achieve a pupil-room ratio for all students of:		
27.6 elementary and 26.3 secondary pupils	117,000	.....
27.4 elementary and 27.5 secondary pupils	.....	98,000
25 elementary and 20 secondary pupils	272,000	285,000
U.S. median pupil-room ratio:		
Elementary schools	27.6	27.4
Secondary schools	26.3	27.5

NA—Not available.

Source: U.S. Department of Health, Education, and Welfare, Office of Education, *National Inventory of School Facilities and Personnel, Spring 1962*, by George J. Collins, and *Condition of Public School Plants, 1964–65*, by George J. Collins and William L. Stormer.

In 1964–65 the number of additional rooms which would have eliminated the use of off-site, nonpermanent, and improvised or makeshift rooms was 76,000 and the number for replacing rooms in buildings with four or more defects was 158,000. Another 98,000 rooms would have been needed to permit all public school pupils to be in rooms with an average of 27 pupils. If they were to be accommodated in rooms with no more than 25 elementary or 20 secondary pupils, the additional number needed would have been 285,000.

Interest expenditures (table 40)

Annual expenditures (in 1971–72 dollars) for interest by public elementary and secondary schools increased from $805 million in 1961–62 to over $1.6 billion in 1971–72 and are expected to be $2.2 billion in 1981–82. Projected interest is shown in table 40. The projections are based on the assumption that the 1961–62 to 1971–72 upward trend will continue through 1981–82. Although capital outlay is expected to level off in the next decade, this assumption seems reasonable because interest payments continue 20 years or more after construction, resulting in debt being incurred at a greater rate than it is being eliminated. The trend formula for projecting interest (y) in 1971–72 dollars was as follows: $y' = \$982 + \$56(t)$; (t=time in years, t=1 in 1961–62).

Nonpublic elementary and secondary schools (tables 35, 36)

Expenditure data for nonpublic elementary and secondary schools comparable to those for public schools are nonexistent. The main reason is that it is extremely difficult to arrive at a universally accepted

method for determining the value of donated services for nonpublic schools, even if data on actual expenditures were collected. These donated services make up a substantial part of nonpublic school resources, especially in the elementary and secondary schools operated by religious orders. In 1968–69 nearly three-fourths of the over 225,000 nonpublic school teachers belonged to religious orders of the Roman Catholic Church. Also, it might be argued that many of the remaining nonpublic school teachers, whose salaries generally run lower than those in public schools, really donated part of their services.

Although it is difficult to arrive at national estimates of nonpublic school expenditures that everyone will accept, the substantial contribution of nonpublic elementary and secondary schools cannot be ignored when total expenditures for education are being considered. Therefore, illustrative estimates of nonpublic elementary and secondary school expenditures were developed rather arbitrarily and are shown in table 35. They are based on the assumption that the cost per teacher (including donated facilities and services) in nonpublic schools is the same as in the public schools. The formula was as follows: $y = xp$ (x = ratio of nonpublic to public school teachers, and p = public school expenditures). The ratio of nonpublic to public school teachers was around 14 percent during the 1960's and is expected to be around 11 percent during the 1970's. The numbers upon which these ratios were computed are shown in table 27.

Some previous Office of Education estimates were based on the assumption that per pupil costs in nonpublic were the same as in public schools. Since the average pupil-teacher ratio is higher in nonpublic than in public schools the previous estimates were higher than those shown here. Both types of estimates are, in a sense, hypothetical. That is, one showed what it would cost to educate nonpublic elementary and secondary school children if they were enrolled in public schools and if the public school pupil-teacher ratio were maintained; and the other type, shown in tables 35 and 36, shows the cost if the pupil-teacher ratio were maintained at the nonpublic school level.

Institutions of Higher Education

Current expenditures (tables 35, 41)

Annual current expenditures of institutions of higher education (in 1971–72 dollars) increased from $9.4 billion in 1961–62 to $25.8 billion in 1971–72. They are expected to reach $43.3 billion by 1981–82. The projected data are based largely upon expected increases in enrollment and upon the trend of increasing costs per student expressed in constant dollars. The result is an expected or projected constant dollar increase of $17.5 billion over the next 10 years compared to a constant dollar increase of $16.4 billion over the past 10 years (see table 35). When expressed in terms of current expenditures per full-time-equivalent student, the data in constant 1971–72 dollars are as follows:

Item	1961–62	1971–72	1981–82
Total current expenditures	$2,939	$3,678	$4,504
Publicly controlled institutions	2,641	3,173	3,884
Nonpublicly controlled institutions	3,403	5,154	7,122

Current expenditures are divided into six functional components: student education, related activities, organized research, auxiliary enterprises, student aid, and major public services. "Student education" encompasses general administration, instruction and departmental research, extension and public service (excluding major public service), libraries, and operation and maintenance. Expenditures for student education were projected by use of the trend of annual expenditures per full-time-equivalent student over the 10-year base period in conjunction with the projected enrollment of such students (see table 35). When expressed in terms of current expenditures per full-time-equivalent student, the data in constant 1971–72 dollars are as follows:

Item	1961–62	1971–72	1981–82
Total current expenditures for student education	$1,676	$2,371	$3,040
Publicly controlled institutions	1,598	2,191	2,822
Nonpublicly controlled institutions	1,797	2,896	3,959

Current expenditures for "student education," related activities, and organized research are commonly known as current expenditures for educational and general purposes, and these expenditures per full-time-equivalent student in constant 1971–72 dollars are as follows:

Item	1961–62	1971–72	1981–82
Total expenditures for educational and general purposes	$2,466	$2,865	$3,618
Publicly controlled institutions	2,268	2,596	3,278
Nonpublicly controlled institutions	2,775	3,653	5,056

Current expenditures for "major public services" were considered among educational and general expenditures until 1968–69. The projection of "major public services" as a separate major component beginning with 1968–69 is segmented. The portion applicable to federally funded research and development centers, formerly a component of organized research, is projected without regard to enrollment or to relationship with any other item. The remainder of major public services expenditures is projected on the basis of its relationship to related activities in 1968–69 in order to permit comparison of educational and general expenditures for 1961–62 and for the succeeding 10-year intervals, the expenditures for major public services per full-time-equivalent student in constant 1971–72 dollars are as follows:

Item	1971–72	1981–82
Total expenditures for major public services	$257	$283
Publicly controlled institutions	189	207
Nonpublicly controlled institutions	457	603

The institutions of higher education engage in organized research and related activities and auxiliary enterprises in widely varying degrees. The "student education" component expressed as expenditure per full-time-equivalent student can be considered a norm for all institutions. Per student data for the United States for total current expenditures and for educational and general expenditures are presented as general interest items and not as institutional norms.

Auxiliary enterprises and student aid expenditures were projected on the basis of their percentage relationship to student education during the base period. These functions are obviously closely related to trends in enrollment, but allowance had to be made for the change during the base period in their percentage relationship to student education. The base-period data indicate a trend toward less emphasis on auxiliary enterprises and more emphasis on student aid.

Item	1961–62 (percent of student education)	1971–72 (percent of student education)	1981–82 (percent of student education)
Auxiliary enterprises:			
Publicly controlled institutions	27.58	16.75	7.08
Nonpublicly controlled institutions	32.25	25.59	20.63
Student aid:			
Publicly controlled institutions	3.44	5.80	8.52
Nonpublicly controlled institutions	9.16	13.01	16.83

The trend of expenditures for related activities should be considered in tandem with a portion of expenditures for "major public services" beginning in 1968–69.

Item	1961–62 (percent of student education)	1971–72 (percent of student education)	1981–82 (percent of student education)
Related activities:			
Publicly controlled institutions	10.05	4.68	4.55
Nonpublicly controlled institutions	8.90	5.84	6.68
Major public services, excluding federally funded R. & D.:			
Publicly controlled institutions		5.58	5.34
Nonpublicly controlled institutions		6.19	7.06

The projections of expenditures for organized research and for the federally funded research and development centers portion of "major public services" were done without regard to enrollment or to relationship with any other item. The trend of the two segments should be viewed as combined in 1961–62 and separately for the two succeeding decades.

Item	1961–62 (billions of constant 1971–72 dollars)	1971–72 (billions of constant 1971–72 dollars)	1981–82 (billions of constant 1971–72 dollars)
Organized research	$2.0	$2.6	$4.0
Publicly controlled	1.0	1.6	2.5
Nonpublicly controlled	1.0	1.0	1.5
Major public services, federally funded research and development centers only		.9	1.1
Publicly controlled		.4	.5
Nonpublicly controlled		.5	.6

Capital outlay (tables 35, 43)

Annual capital outlay of institutions of higher education (in 1971–72 dollars) increased from $3.0 billion during 1961–62 to an estimated $4.1 billion in 1971–72 and is expected to fall back to $2.4 billion during 1981–82. Capital outlay over the entire 10-year base period of 196_–63 to 1971–72 amounted to an estimated total of $49.6 billion (in 1971–72 dollars) and is expected to reach a total of $31.7 billion (in 1971–72 dollars) over the 10-year projected period of 1972–73 to 1981–82. The decline in annual projected capital outlay from $3.8 billion in 1972–73 to $2.4 billion in 1981–82 can be attributed to declining numbers of additional students projected for these years.

The historical data showed clearly that capital outlay could not be related to increased enrollment on an annual basis. However, an annual figure could be reasonably estimated by utilizing a moving average of enrollment increases, provided that declining numbers of additional students be given only 50 percent weight and that minus additional students were given zero weight. The annual increases thus obtained were still considerably less reliable than aggregated 5-year figures. It should be emphasized, then, that the annual capital outlay shown in tables 35 and 43 should be regarded as interpolations and that the 1971–72 dollar aspect of the projections should be kept in mind.

Expenditures for interest (tables 35, 41)

Data on expenditures for interest by institutions of higher education are incomplete and cannot be shown as a separate item. The major portion of expenditures for interest is estimated to be included with the current expenditures shown in tables 35 and 41.

Table 35.—Expenditures (1971–72 dollars) of regular educational institutions, by instructional level and institutional control: United States, 1961–62 to 1981–82

(In billions of 1971–72 dollars)

Year and control	Total (all levels)	Elementary and secondary schools [1] (nonpublic school expenditures estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education [2]		
		Total	Current expenditures [3]	Capital outlay [4]	Interest [5]	Total	Current expenditures [6]	Capital outlay [7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1961–62:								
Total	$42.3	$29.9	$23.0	$6.0	$0.9	$12.4	$9.4	$3.0
Public	33.4	26.5	20.4	5.3	.8	6.9	5.1	1.8
Nonpublic	8.9	3.4	2.6	.7	.1	5.5	4.3	1.2
1962–63:								
Total	45.9	31.1	24.9	5.2	1.0	14.8	10.5	4.3
Public	36.0	27.5	22.0	4.6	.9	8.5	5.8	2.7
Nonpublic	9.9	3.6	2.9	.6	.1	6.3	4.7	1.6
1963–64:								
Total	49.5	33.6	26.6	6.0	1.0	15.9	11.8	4.1
Public	38.7	29.7	23.5	5.3	.9	9.0	6.5	2.5
Nonpublic	10.8	3.9	3.1	.7	.1	6.9	5.3	1.6
1964–65:								
Total	54.3	36.3	28.4	6.8	1.1	18.0	13.4	4.6
Public	42.2	32.1	25.1	6.0	1.0	10.1	7.5	2.6
Nonpublic	12.1	4.2	3.3	.8	.1	7.9	5.9	2.0
1965–66:								
Total	60.0	39.4	31.6	6.7	1.1	20.6	15.5	5.1
Public	46.8	34.9	28.0	5.9	1.0	11.9	8.7	3.2
Nonpublic	13.2	4.5	3.6	.8	.1	8.7	6.8	1.9
1966–67:								
Total	64.0	41.1	32.9	6.8	1.4	22.9	17.0	5.9
Public	50.1	36.4	29.2	6.0	1.2	13.7	9.9	3.8
Nonpublic	13.9	4.7	3.7	.8	.2	9.2	7.1	2.1
1967–68:								
Total	70.7	45.7	37.7	6.7	1.3	25.0	19.1	5.9
Public	56.3	40.8	33.6	6.0	1.2	15.5	11.6	3.9
Nonpublic	14.4	4.9	4.1	.7	.1	9.5	7.5	2.0
1968–69:								
Total	72.6	46.5	38.4	6.8	1.3	26.1	20.5	5.6
Public	58.5	41.7	34.4	6.1	1.2	16.8	12.6	4.2
Nonpublic	14.1	4.8	4.0	.7	.1	9.3	7.9	1.4
1969–70:								
Total	77.3	49.8	41.7	6.7	1.4	27.5	22.1	5.4
Public	62.5	44.9	37.6	6.0	1.3	17.6	13.8	3.8
Nonpublic	14.8	4.9	4.1	.7	.1	9.9	8.3	1.6
1970–71:								
Total	79.9	51.2	43.5	6.2	1.5	28.7	24.1	4.6
Public	65.3	46.4	39.4	5.6	1.4	18.9	15.3	3.6
Nonpublic	14.6	4.8	4.1	.6	.1	9.8	8.8	1.0

See footnotes at end of table.

Table 35.—Expenditures (1971–72 dollars) of regular educational institutions, by instructional level and institutional control: United States, 1961–62 to 1981–82—Continued

(In billions of 1971–72 dollars)

Year and control	Total (all levels)	Elementary and secondary schools [1] (nonpublic school expenditures estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education [2]		
		Total	Current expenditures [3]	Capital outlay [4]	Interest [5]	Total	Current expenditures [6]	Capital outlay [7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1971–72:								
Total	$83.5	$53.6	$46.2	$5.6	$1.8	$29.9	$25.8	$4.1
Public	68.5	48.6	41.9	5.1	1.6	19.9	16.6	3.3
Nonpublic	15.0	5.0	4.3	.5	.2	10.0	9.2	.8
				PROJECTED				
1972–73:								
Total	85.9	54.8	47.3	5.6	1.9	31.1	27.3	3.8
Public	70.6	49.8	43.0	5.1	1.7	20.8	17.7	3.1
Nonpublic	15.3	5.0	4.3	.5	.2	10.3	9.6	.7
1973–74:								
Total	88.7	56.2	48.7	5.6	1.9	32.5	29.0	3.5
Public	73.1	51.1	44.3	5.1	1.7	22.0	19.0	3.0
Nonpublic	15.6	5.1	4.4	.5	.2	10.5	10.0	.5
1974–75:								
Total	92.1	57.7	50.1	5.6	2.0	34.4	31.0	3.4
Public	75.9	52.5	45.6	5.1	1.8	23.4	20.5	2.9
Nonpublic	16.2	5.2	4.5	.5	.2	11.0	10.5	.5
1975–76:								
Total	95.4	59.0	51.4	5.6	2.0	36.4	32.9	3.5
Public	78.8	53.8	46.9	5.1	1.8	25.0	22.0	3.0
Nonpublic	16.6	5.2	4.5	.5	.2	11.4	10.9	.5
1976–77:								
Total	98.7	60.5	52.8	5.6	2.1	38.2	34.7	3.5
Public	81.7	55.3	48.3	5.1	1.9	26.4	23.4	3.0
Nonpublic	17.0	5.2	4.5	.5	.2	11.8	11.3	.5
1977–78:								
Total	101.9	62.0	54.3	5.6	2.1	39.9	36.6	3.3
Public	84.5	56.7	49.7	5.1	1.9	27.8	24.9	2.9
Nonpublic	17.4	5.3	4.6	.5	.2	12.1	11.7	.4
1978–79:								
Total	105.2	63.8	56.0	5.6	2.2	41.4	38.4	3.0
Public	87.4	58.4	51.3	5.1	2.0	29.0	26.3	2.7
Nonpublic	17.8	5.4	4.7	.5	.2	12.4	12.1	.3
1979–80:								
Total	108.5	65.6	57.7	5.6	2.3	42.9	40.1	2.8
Public	90.3	60.2	53.0	5.1	2.1	30.1	27.6	2.5
Nonpublic	18.2	5.4	4.7	.5	.2	12.8	12.5	.3
1980–81:								
Total	112.0	67.7	59.8	5.6	2.3	44.3	41.7	2.6
Public	93.3	62.1	54.9	5.1	2.1	31.2	28.9	2.3
Nonpublic	18.7	5.6	4.9	.5	.2	13.1	12.8	.3

Table 35.—Expenditures (1971–72 dollars) of regular educational institutions, by instr :tional level and institutional control: United States, 1961–62 to 1981–82—Continued

(In billions of 1971–72 dollars)

Year and control	Total (all levels)	Elementary and secondary schools [1] (nonpublic school expenditures estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education [2]		
		Total	Current expend-itures [3]	Capital outlay [4]	Interest [5]	Total	Current expend-itures [6]	Capital outlay [7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1981–82:								
Total	$115.7	$70.0	$62.1	$5.5	$2.4	$45.7	$43.3	$2.4
Public	96.7	64.4	57.1	5.1	2.2	32.3	30.2	2.1
Nonpublic	19.0	5.6	5.0	.4	.2	13.4	13.1	.3

[1] Excludes expenditures for residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and federally operated schools on Federal installations. See text table on expenditures by source of funds for data on these schools. All nonpublic elementary and secondary school expenditures shown here are estimated on the basis of expenditures per teacher in public elementary and secondary schools.

[2] Includes expenditures for subcollegiate departments of institutions of higher education, estimated at $90 million in 1971–72. Includes expenditures for interest paid from plant funds. (An estimated $275 million was expended for total interest in 1971–72.)

[3] Includes current expenditures of public elementary and secondary school systems for community services, summer schools, community colleges, and adult education.

[4] Includes capital outlay of State and local school building authorities.

[5] Interest for nonpublic schools is based on interest for public schools.

[6] Includes expenditures for interest from current funds. Excludes expenditures from current funds for capital outlay.

[7] The estimated annual capital outlay data shown here include estimated expenditures for replacement and rehabilitation.

NOTE.—Data are for 50 States and the District of Columbia.

SOURCES: Data are a summary of tables 37 through 43, each of which indicates sources of data.

Table 36.—Expenditures (current dollars) of regular educational institutions, by instructional level and institutional control: United States, 1961–62 to 1973–74

(In billions of current dollars)

Year and control	Total (all levels)	Elementary and secondary schools [1] (nonpublic school expenditures estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education [2]		
		Total	Current expenditures [3]	Capital outlay [4]	Interest [5]	Total	Current expenditures [6]	Capital outlay [7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1961–62:								
Total	$29.3	$20.8	$16.7	$3.4	$0.7	$8.5	$6.8	$1.7
Public	23.2	18.5	14.9	3.0	.6	4.7	3.7	1.0
Nonpublic	6.1	2.3	1.8	.4	.1	3.8	3.1	.7
1962–63:								
Total	32.4	22.2	18.4	3.1	.7	10.2	7.7	2.5
Public	25.3	19.5	16.2	2.7	.6	5.8	4.2	1.6
Nonpublic	7.1	2.7	2.2	.4	.1	4.4	3.5	.9
1963–64:								
Total	35.6	24.3	20.0	3.5	.8	11.3	8.8	2.5
Public	27.8	21.4	17.6	3.1	.7	6.4	4.9	1.5
Nonpublic	7.8	2.9	2.4	.4	.1	4.9	3.9	1.0
1964–65:								
Total	39.6	26.7	21.6	4.2	.9	12.9	10.1	2.8
Public	30.8	23.6	19.1	3.7	.8	7.2	5.6	1.6
Nonpublic	8.8	3.1	2.5	.5	.1	5.7	4.5	1.2
1965–66:								
Total	44.9	29.7	24.5	4.3	.9	15.2	11.9	3.3
Public	35.1	26.3	21.7	3.8	.8	8.8	6.7	2.1
Nonpublic	9.8	3.4	2.8	.5	.1	6.4	5.2	1.2
1966–67:								
Total	49.4	31.9	26.4	4.5	1.0	17.5	13.6	3.9
Public	38.7	28.3	23.4	4.0	.9	10.4	7.9	2.5
Nonpublic	10.7	3.6	3.0	.5	.1	7.1	5.7	1.4
1967–68:								
Total	56.9	37.0	31.1	4.8	1.1	19.9	15.8	4.1
Public	45.3	33.0	27.7	4.3	1.0	12.3	9.6	2.7
Nonpublic	11.6	4.0	3.4	.5	.1	7.6	6.2	1.4
1968–69:								
Total	61.7	39.6	33.3	5.2	1.1	22.1	17.8	4.3
Public	49.6	35.5	29.8	4.7	1.0	14.1	10.9	3.2
Nonpublic	12.1	4.1	3.5	.5	.1	8.0	6.9	1.1
1969–70:								
Total	69.7	45.0	38.3	5.4	1.3	24.7	20.3	4.4
Public	56.4	40.6	34.5	4.9	1.2	15.8	12.7	3.1
Nonpublic	13.3	4.4	3.8	.5	.1	8.9	7.6	1.3

See footnotes at end of table

Table 36.—Expenditures (current dollars) of regular educational institutions, by instructional level and institutional control: United States, 1961–62 to 1973–74—Continued

(In billions of current dollars)

Year and control	Total (all levels)	Elementary and secondary schools [1] (nonpublic school expenditures estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education [2]		
		Total	Current expenditures [3]	Capital outlay [4]	Interest [5]	Total	Current expenditures [6]	Capital outlay [7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1970–71:								
Total	$76.6	$49.2	$42.0	$5.6	$1.6	$27.4	$23.3	$4.1
Public	62.5	44.5	38.0	5.1	1.4	18.0	14.8	3.2
Nonpublic	14.1	4.7	4.0	.5	.2	9.4	8.5	.9
1971–72:								
Total	83.5	53.6	46.2	5.6	1.8	29.9	25.8	4.1
Public	68.5	48.6	41.9	5.1	1.6	19.9	16.6	3.3
Nonpublic	15.0	5.0	4.3	.5	.2	10.0	9.2	.8
	PROJECTED							
1972–73:								
Total	89.9	57.4	49.4	6.1	1.9	32.5	28.5	4.0
Public	73.9	52.1	44.9	5.5	1.7	21.8	18.5	3.3
Nonpublic	16.0	5.3	4.5	.6	.2	10.7	10.0	.7
1973–74:								
Total	97.3	61.6	53.1	6.4	2.1	35.7	31.6	4.1
Public	80.2	56.0	48.3	5.8	1.9	24.2	20.7	3.5
Nonpublic	17.1	5.6	4.8	.6	.2	11.5	10.9	.6

[1] Excludes expenditures for residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and federally operated schools on Federal installations. See text table on expenditures by source of funds for data on these schools. All nonpublic elementary and secondary school expenditures shown here are estimated on the basis of expenditures per teacher in public elementary and secondary schools.

[2] Includes expenditures for subcollegiate departments of institutions of higher education, estimated at $90 million in 1971–72. Includes expenditures for interest from current funds and excludes interest paid from plant funds. (An estimated $275 million was expended for total interest in 1971–72.)

[3] Includes current expenditures of public elementary and secondary school systems for community services, summer schools, community colleges, and adult education. Interest is included in the estimated current expenditures of nonpublic schools.

[4] Includes capital outlay of State and local school building authorities.

[5] Interest for nonpublic schools is based on interest for public schools.

[6] Includes expenditures for interest from current funds. Excludes expenditures from current funds. Excludes expenditures from current funds for capital outlay.

[7] The estimated annual capital outlay data shown here include estimated expenditures for replacement and rehabilitation.

NOTE.—Data are for 50 States and the District of Columbia.

SOURCES: Data are a summary of tables 37 through 43, each of which indicates sources of data.

Table 37.—Current expenditures of public school systems: United States, 1961–62 to 1981–82

Year	Average daily attendance (in thousands)	Allocated to pupil costs[1]				All programs[2]	
		Per pupil in average daily attendance		Total (in billions)		Total (in billions)	
		Current dollars	1971–72 dollars	Current dollars	1971–72 dollars	Current dollars	1971–72 dollars
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961–62	34,682	$418.50	$569	$14.7	$20.1	$14.9	$20.4
1962–63[3]	35,882	439.00	594	15.8	21.3	16.2	22.0
1963–64	37,405	460.24	614	17.2	23.0	17.6	23.5
1964–65[4]	38,600	484.00	637	18.6	24.5	19.1	25.1
1965–66	39,154	537.35	692	21.1	27.1	21.7	28.0
1966–67[4]	40,000	569.00	711	22.6	28.3	23.4	29.2
1967–68	40,828	658.26	796	26.9	32.5	27.7	33.6
1968–69[4]	41,157	696.00	803	28.6	33.1	29.8	34.4
1969–70[4]	42,283	783.00	853	33.1	36.1	34.5	37.6
1970–71[4]	42,486	858.00	889	36.5	37.7	38.0	39.4
1971–72[4]	42,985	934.00	934	40.1	40.1	41.9	41.9
				PROJECTED[5]			
1972–73	42,600	[6] 1,014.00	971	[6] 43.2	41.4	[6] 44.9	43.0
1973–74	42,300	[6] 1,097.00	1,008	[6] 46.4	42.6	[6] 48.3	44.3
1974–75	42,000		1,045		43.9		45.6
1975–76	41,700		1,081		45.1		46.9
1976–77	41,500		1,118		46.4		48.3
1977–78	41,400		1,155		47.8		49.7
1978–79	41,400		1,192		49.3		51.3
1979–80	41,500		1,229		51.0		53.0
1980–81	41,700		1,266		52.8		54.9
1981–82	42,100		1,303		54.9		57.1

[1] Includes only the current expenditures for public day schools allocated to pupil costs; excludes the other expenditures shown in footnote 2.

[2] Includes current expenditures for summer schools, adult education, and community colleges operated by school districts, in addition to expenditures allocable to pupil costs.

[3] Estimated on the basis of actual enrollment and interpolated expenditures per pupil.

[4] Derived from estimates furnished by States.

[5] The projections of current expenditures of public school systems are based on the assumptions that: (1) The ratio of average daily attendance to enrollment in grades K–12 of public schools (table 3) will remain constant at the level of 0.925 through 1975–76 and at 0.926 through 1981–82, (2) current expenditures allocated to costs per pupil in average daily attendance will follow the 1961–62 through 1971–72 trend, and (3) the ratio of current expenditures for all programs to current expenditures allocated to pupil costs will remain constant at the level of 1.04.

[6] Based on the assumption that the Consumer Price Index will follow the 1967–68 through 1971–72 trend through 1973–74.

For methodological details, see appendix A, table A–4, and discussion in text.

NOTE.—Data are for 50 States and the District of Columbia for all years.

The expenditures shown in this table include current expenditures for administration for State Boards of Education, and intermediate administrative units.

SOURCES: Data are based on statistics shown in the U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Statistics of State School Systems*, 1961–62 through 1967–68; and (2) *Statistics of Public Schools*, fall 1962 through 1971. Current expenditures were converted to 1971–72 dollars on the basis of the Consumer Price Index prepared by the Bureau of Labor Statistics, U.S. Department of Labor. (For method of converting, see appendix B, table 6.)

Table 38.—Current expenditures for salaries of instructional staff in regular public elementary and secondary schools: United States, 1961–62 to 1981–82

Year	Number of instructional staff[1] (in thousands)	Salaries of instructional staff[2]			
		Average annual salary		Total (in billions)	
		Current dollars	1971–72 dollars	Current dollars	1971–72 dollars
(1)	(2)	(3)	(4)	(5)	(6)
1961–62	1,588	$5,789	$7,922	$9.2	$12.6
1962–63[3]	1,641	5,930	8,020	9.7	13.2
1963–64	1,717	6,277	8,370	10.8	14.4
1964–65[4]	1,813	6,400	8,426	11.6	15.9
1965–66	1,885	6,935	8,936	13.1	16.8
1966–67[4]	1,984	7,110	8,887	14.1	17.6
1967–68	2,071	7,905	9,561	16.4	19.8
1968–69	2,157	8,200	9,462	17.8	20.4
1969–70[4]	2,240	8,840	9,630	20.0	21.6
1970–71[4]	2,290	9,570	9,915	22.2	22.7
1971–72[4]	2,288	10,100	10,100	23.1	23.1
		PROJECTED[5]			
1972–73	2,315	[6] 10,800	10,300	25.0	23.8
1973–74	2,329	[6] 11,500	10,600	26.8	24.7
1974–75	2,333		10,800		25.2
1975–76	2,337		11,000		25.7
1976–77	2,341		11,300		26.5
1977–78	2,349		11,500		27.0
1978–79	2,354		11,700		27.5
1979–80	2,371		12,000		28.5
1980–81	2,396		12,200		29.2
1981–82	2,429		12,400		30.1

[1] Data on number of instructional staff were taken from table 31.

[2] The average annual salaries of instructional staff are about 4 percent higher than the salaries of classroom teachers.

[3] Estimated on the basis of the actual number of instructional staff and interpolated expenditures per staff member for salaries.

[4] Estimates of salaries furnished by State education departments.

[5] The projections of current expenditures for salaries of instructional staff in public elementary and secondary schools are based on the following assumptions: (1) Average annual salaries will follow the 1961–62 through 1971–72 trend, and (2) the ratio of instructional staff to classroom teachers in regular public schools will follow the 1961–62 through 1971–72 trend.

[6] Based on the assumption that the Consumer Price Index will follow the 1967–68 through 1971–72 trend through 1973–74.

NOTE.—Data are for 50 States and the District of Columbia for all years.

Conversion to 1971–72 dollars was based on the Consumer Price Index prepared by the Bureau of Labor Statistics, U.S. Department of Labor. For method of converting, see appendix B, table 6.

SOURCES: Data are based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education publications: *Statistics of State School Systems*, 1961–62 through 1967–68, and *Statistics of Public Schools*, fall 1964 through 1971.

Table 39.—Construction of public elementary and secondary school classrooms and capital outlay: United States, 1961–62 through 1981–82

Year	Rooms completed	Bond sales in millions of current dollars	Capital outlay [1]				
			Current dollars			1971–72 dollars	
			Percent of bond sales	Total in millions	Per room	Total in millions	Per room
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961–62	71,987	$2,568	116	$2,987	$41,500	$5,300	$73,200
1962–63 [2]	65,300	2,274	119	2,700	41,300	4,600	71,100
1963–64	69,300	2,569	122	3,135	45,200	5,300	75,800
1964–65 [2]	65,300	2,823	131	3,700	56,700	6,000	92,600
1965–66	72,600	2,883	130	3,755	51,700	5,900	81,400
1966–67 [3]	71,000	3,254	123	4,000	56,300	6,000	83,900
62–63 to 66–67	343,500	13,803	125	17,290	50,300	27,800	81,000
1967–68	75,400	2,917	146	4,256	56,400	6,000	80,000
1968–69 [3]	69,700	2,904	160	4,654	66,800	6,100	87,300
1969–70 [3]	66,100	2,813	173	4,874	73,700	6,000	90,800
1970–71 [3]	65,300	3,908	130	5,061	77,500	5,600	85,800
1971–72 [3]	[4] 63,000	3,368	144	4,864	77,200	4,864	77,200
67–68 to 71–72	339,500	15,910	149	23,709	69,800	28,564	85,000
	PROJECTED [5]						
1972–73	60,000			[6] 5,500		5,100	85,000
1973–74	60,000			[6] 5,800		5,100	85,000
1974–75	60,000					5,100	85,000
1975–76	60,000					5,100	85,000
1976–77	60,000					5,100	85,000
72–73 to 76–77	300,000					25,500	85,000
1977–78	60,000					5,100	85,000
1978–79	60,000					5,100	85,000
1979–80	60,000					5,100	85,000
1980–81	60,000					5,100	85,000
1981–82	60,000					5,100	85,000
77–78 to 81–82	300,000					25,500	85,000

[1] In 1961–62, 2 percent of capital outlay was estimated to be used for transportation equipment, 15 percent for other equipment, and 83 percent for land and buildings.

[2] Capital outlay was estimated at 119 percent of bond sales, the average for 1961–62 and 1963–64.

[3] Capital outlay was estimated by State departments of education.

[4] Estimated.

[5] Projections of construction of public elementary and secondary school classrooms and of capital outlay are based on the assumptions that: (1) The total number of rooms constructed will remain constant at 60,000 rooms per year, projected on the basis of the 1961–62 through 1971–72 trend, and (2) the capital outlay per room will remain constant at $85,000 per room.

[6] Based on the assumption that the Construction Cost Index will follow the 1967–68 through 1971–72 trend through 1973–74.

For further methodological details, see appendix A, table A–4.

NOTE.—Data are for 50 States and the District of Columbia for all years.

Table 40.—Expenditures for interest by public elementary and secondary school systems: United States, 1961–62 to 1981–82

Year	Total interest including payments to schoolhousing authorities or similar agencies	
	Current dollars	1971–72 dollars
(1)	(2)	(3)
1961–62	$588	$805
1962–63 [1]	644	871
1963–64	701	935
1964–65 [2]	761	1,002
1965–66	792	1,020
1966–67 [2]	949	1,186
1967–68	978	1,183
1968–69 [2]	1,015	1,171
1969–70 [2]	1,180	1,285
1970–71	1,336	1,384
1971–72	1,602	1,602
PROJECTED [3]		
1972–73	[4] 1,731	1,658
1973–74	[4] 1,867	1,715
1974–75		1,771
1975–76		1,828
1976–77		1,884
1977–78		1,940
1978–79		1,997
1979–80		2,053
1980–81		2,110
1981–82		2,166

[1] Interpolated.

[2] Estimates furnished by State education departments.

[3] Projections of expenditures for interest are based on the assumption that these expenditures will follow the 1961–62 through 1971–72 trend.

[4] Based on the assumption that the Consumer Price Index will follow the 1967–68 through 1971–72 trend through 1973–74.

For methodological details, see appendix A, table A–4.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: Data are based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Statistics of State School Systems*, 1961–62 to 1967–68; and (2) *Statistics of Public Schools*, fall 1964 through fall 1971. Conversion to 1971–72 dollars was based on the Consumer Price Index prepared by the Bureau of Labor Statistics, U.S. Department of Labor. (For method of converting, see appendix B, table B–6.)

Table 41.—Expenditures from current funds and total current expenditures (1971–72 dollars) by institutions of higher education: United States, 1961–62 to 1981–82

[In billions of 1971–72 dollars]

Year and control	Educational and general purposes			Auxiliary enterprises [4]	Student aid [5]	Major public service [6]	Total expenditures from current funds (sum of columns 2 through 7)	Capital outlay from current funds only	Total current expenditures [7] (column 8 less column 9)
	Student education [1]	Organized research [2]	Related activities [3]						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1961–62:									
Total	$5.4	$2.0	$0.5	$1.5	$0.3	(8)	$9.7	$0.3	$9.4
Public	3.1	1.0	.3	.8	.1		5.3	.2	5.1
Nonpublic	2.3	1.0	.2	.7	.2		4.4	.1	4.3
1962–63: [9]									
Total	6.0	2.3	.6	1.8	.3	(8)	11.0	.5	10.5
Public	3.5	1.1	.4	1.0	.1		6.1	.3	5.8
Nonpublic	2.5	1.2	.2	.8	.2		4.9	.2	4.7
1963–64:									
Total	6.6	2.6	.6	2.0	.5	(8)	12.3	.5	11.8
Public	3.9	1.2	.4	1.1	.2		6.8	.3	6.5
Nonpublic	2.7	1.4	.2	.9	.3		5.5	.2	5.3
1964–65: [9]									
Total	7.5	2.9	.8	2.3	.5	(8)	14.0	.6	13.4
Public	4.5	1.4	.5	1.2	.2		7.8	.3	7.5
Nonpublic	3.0	1.5	.3	1.1	.3		6.2	.3	5.9
1965–66:									
Total	8.7	3.2	.9	2.7	.6	(8)	16.1	.6	15.5
Public	5.3	1.5	.6	1.5	.2		9.1	.4	8.7
Nonpublic	3.4	1.7	.3	1.2	.4		7.0	.2	6.8
1966–67:									
Total	10.0	3.1	1.1	2.9	.7	(8)	17.8	.8	17.0
Public	6.2	1.5	.7	1.7	.3		10.4	.5	9.9
Nonpublic	3.8	1.6	.4	1.2	.4		7.4	.3	7.1
1967–68:									
Total	11.6	3.2	1.1	3.1	.9	(8)	19.9	.8	19.1
Public	7.5	1.7	.7	1.8	.4		12.1	.5	11.6
Nonpublic	4.1	1.5	.4	1.3	.5		7.8	.3	7.5
1968–69:									
Total	13.0	[10] 2.4	[11] .6	2.9	.9	[12] $1.5	21.3	.8	20.5
Public	8.5	1.4	.4	1.7	.4	.8	13.2	.6	12.6
Nonpublic	4.5	1.0	.2	1.2	.5	.7	8.1	.2	7.9
1969–70:									
Total	14.2	[10] 2.4	[11] .6	2.9	1.1	[12] 1.7	22.9	.8	22.1
Public	9.5	1.4	.4	1.7	.5	.9	14.4	.6	13.8
Nonpublic	4.7	1.0	.2	1.2	.6	.8	8.5	.2	8.3

See footnotes at end of table

Table 41.—Expenditures from current funds and total current expenditures (1971–72 dollars) by institutions of higher education: United States, 1961–62 to 1981–82—Continued

[In billions of 1971–72 dollars]

Year and control	Educational and general purposes			Auxiliary enterprises [4]	Student aid [5]	Major public service [6]	Total expenditures from current funds (sum of columns 2 through 7)	Capital outlay from current funds only	Total current expenditures [7] (column 8 less column 9)
	Student education [1]	Organized research [2]	Related activities [3]						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1970–71: [13]									
Total	15.4	[10] 2.5	[11] .8	3.1	1.2	[12] 1.7	24.7	.6	24.1
Public	10.5	1.5	.5	1.8	.6	.9	15.8	.5	15.3
Nonpublic	4.9	1.0	.3	1.3	.6	.8	8.9	.1	8.8
1971–72: [13]									
Total	16.6	[10] 2.6	[11] .8	3.2	1.4	[12] 1.8	26.4	.6	25.8
Public	11.4	1.6	.5	1.9	.7	1.0	17.1	.5	16.6
Nonpublic	5.2	1.0	.3	1.3	.7	.8	9.3	.1	9.2
	PROJECTED [14]								
1972–73:									
Total	17.6	[10] 2.8	[11] .9	3.2	1.4	[12] 2.0	27.9	.6	27.3
Public	12.2	1.7	.6	1.9	.7	1.1	18.2	.5	17.7
Nonpublic	5.4	1.1	.3	1.3	.7	.9	9.7	.1	9.6
1973–74:									
Total	18.3	[10] 3.0	[11] .9	3.3	1.6	[12] 2.0	29.6	.6	29.0
Public	13.2	1.8	.6	2.0	.8	1.1	19.5	.5	19.0
Nonpublic	5.6	1.2	.3	1.3	.8	.9	10.1	.1	10.0
1974–75:									
Total	20.1	[10] 3.1	[11] 1.1	3.4	1.8	[12] 2.1	31.6	.6	31.0
Public	14.3	.9	.7	2.0	.9	1.2	21.0	.5	20.5
Nonpublic	5.8	1.2	.4	1.4	.9	.9	10.6	.1	10.5
1975–76:									
Total	21.6	[10] 3.2	[11] 1.1	3.4	2.0	[12] 2.2	33.5	.6	32.9
Public	15.5	2.0	.7	2.0	1.1	1.2	22.5	.5	22.0
Nonpublic	6.1	1.2	.4	1.4	.9	1.0	11.0	.1	10.9
1976–77:									
Total	22.9	[10] 3.3	[11] 1.2	3.5	2.1	[12] 2.3	35.3	.6	34.7
Public	16.6	2.0	.8	2.0	1.2	1.3	23.9	.5	23.4
Nonpublic	6.3	1.3	.4	1.5	.9	1.0	11.4	.1	11.3
1977–78:									
Total	24.2	[10] 3.6	[11] 1.2	3.4	2.3	[12] 2.4	37.1	.5	36.6
Public	17.7	2.2	.8	1.9	1.3	1.4	25.3	.4	24.9
Nonpublic	6.5	1.4	.4	1.5	1.0	1.0	11.8	.1	11.7
1978–79:									
Total	25.6	[10] 3.7	[11] 1.3	3.4	2.4	[12] 2.5	38.9	.5	38.4
Public	18.8	2.3	.9	1.9	1.4	1.4	26.7	.4	26.3
Nonpublic	6.8	1.4	.4	1.5	1.0	1.1	12.2	.1	12.1

Table 41.—Expenditures from current funds and total current expenditures (1971–72 dollars) by institutions of higher education: United States, 1961–62 to 1981–82—Continued

[In billions of 1971–72 dollars]

Year and control	Educational and general purposes			Auxiliary enterprises [4]	Student aid [5]	Major public service [6]	Total expenditures from current funds (sum of columns 2 through 7)	Capital outlay from current funds only	Total current expenditures [7] (column 8 less column 9)
	Student education [1]	Organized research [2]	Related activities [3]						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1979–80:									
Total	26.8	[10] 3.7	[11] 1.4	3.3	2.7	[12] 2.6	40.5	.4	40.1
Public	19.9	2.3	.9	1.8	1.6	1.5	28.0	.4	27.6
Nonpublic	6.9	1.4	.5	1.5	1.1	1.1	12.5	([15])	12.5
1980–81:									
Total	28.0	[10] 3.8	[11] 1.5	3.2	2.9	[12] 2.7	42.1	.4	41.7
Public	20.9	2.4	1.0	1.7	1.7	1.6	29.3	.4	28.9
Nonpublic	7.1	1.4	.5	1.5	1.2	1.1	12.8	([15])	12.8
1981–82:									
Total	29.2	[10] 4.0	[11] 1.5	3.1	3.1	[12] 2.7	43.6	.3	43.3
Public	21.9	2.5	1.0	1.6	1.9	1.6	30.5	.3	30.2
Nonpublic	7.3	1.5	.5	1.5	1.2	1.1	13.1	([15])	13.1

[1] Includes general administration, instruction and departmental research, extension and public services, libraries, operation and maintenance of the physical plant, and sponsored activities such as training institutes and related sponsored activities which were specifically financed by outside sources.

[2] Includes all sponsored research and other separately budgeted research through 1967–68. Beginning in 1968–69, expenditures of federally funded research and development centers are included with major public service programs.

[3] Includes expenditures for such categories as laboratory schools, medical school hospitals, dental clinics, home economics cafeterias, agricultural college creameries, college-operated industrial plants connected with instructional programs but not actually integral parts of them, and all other expenditures for educational and general activities which are not specifically identified as expended for "student education" or organized research. Beginning in 1968–69, expenditures for major public service programs formerly included under "related activities" are reported as a separate category.

[4] Auxiliary enterprises include student dormitories, dining halls, cafeterias, student unions, bookstores, faculty housing, athletic programs not part of the instructional program, lectures, concerts, and expenditures for plant assets from current funds which are not itemized under educational and general expenditures.

[5] Student aid includes only grants to students in the form of scholarships, fellowships, grants-in-aid, and prizes and awards for which no services are required of the student. Loans to students are not included.

[6] Formerly included with the educational and general group prior to 1968–69. Consists of federally funded research and development centers, hospitals, and other public service programs.

[7] Current-fund expenditures less capital outlay from current funds.

[8] Not separately reported until 1968–69.

[9] Interpolated.

[10] Data for federally funded research and development centers are reported under major public service programs.

[11] Beginning in 1968–69, related activities classified as major public service are reported separately.

[12] Prior to 1968–69, major public service programs were included with several items under educational and general.

[13] Estimated.

[14] The projection of expenditures from current funds is based on the following assumptions: (1) Expenditures per student and the percent of college-age persons attending college, on which expenditures for student education depend, will continue to increase as they did during the years 1961–62 to 1971–72. (2) Expenditures for organized (sponsored and other separately budgeted) research will follow the

1961–62 to 1971–72 trend. (3) The relationship to student education of expenditures for related activities, for auxiliary enterprises, and for student aid will each continue the 1961–62 to 1971–72 trend. (4) The relationship of major public service components to organized research and to related activities will continue as indicated in 1968–69, the first and only reported data available. (5) The 1970–71 to 1981–82 expenditures from current funds for capital outlay will approximate 16 percent of total capital outlay.

[15] Less than 0.05 billion dollars.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: See table 42. Conversion to 1971–72 dollars was based on the Consumer Price Index published by the Bureau of Labor Statistics, U.S. Department of Labor, and (for capital outlay) on the American Appraisal Company Construction Cost Index. (For method of converting the indexes, see appendix B, table B–6.)

Table 42.—Expenditures from current funds and total current expenditures (current dollars) by institutions of higher education: United States, 1961–62 to 1973–74

[In billions of current dollars]

Year and control	Educational and general purposes			Auxiliary enterprises [4]	Student aid [5]	Major public service [6]	Total expenditures from current funds (sum of columns 2 through 7)	Capital outlay from current funds only	Total current expenditures [7] (column 8 less column 9)
	Student education [1]	Organized research [2]	Related activities [3]						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1961–62:									
Total	$3.9	$1.5	$0.3	$1.1	$0.3	(8)	$7.1	$0.3	$6.8
Public	2.3	.7	.2	.6	.1		3.9	.2	3.7
Nonpublic	1.6	.8	.1	.5	.2		3.2	.1	3.1
1962–63: [9]									
Total	4.4	1.7	.5	1.3	.3	(8)	8.2	.5	7.7
Public	2.6	.8	.3	.7	.1		4.5	.3	4.2
Nonpublic	1.8	.9	.2	.6	.2		3.7	.2	3.5
1963–64:									
Total	5.0	1.9	.5	1.5	.3	(8)	9.2	.4	8.8
Public	3.0	.9	.3	.8	.1		5.1	.2	4.9
Nonpublic	2.0	1.0	.2	.7	.2		4.1	.2	3.9
1964–65: [9]									
Total	5.7	2.2	.6	1.8	.3	(8)	10.6	.5	10.1
Public	3.4	1.0	.4	1.0	.1		5.9	.3	5.6
Nonpublic	2.3	1.2	.2	.8	.2		4.7	.2	4.5
1965–66:									
Total	6.8	2.5	.6	2.1	.4	(8)	12.4	.5	11.9
Public	4.1	1.2	.4	1.2	.1		7.0	.3	6.7
Nonpublic	2.7	1.3	.2	.9	.3		5.4	.2	5.2
1966–67:									
Total	8.0	2.5	.8	2.3	.6	(8)	14.2	.6	13.6
Public	5.0	1.2	.5	1.3	.3		8.3	.4	7.9
Nonpublic	3.0	1.3	.3	1.0	.3		5.9	.2	5.7
1967–68:									
Total	9.6	2.7	.9	2.6	.7	(8)	16.5	.7	15.8
Public	6.2	1.4	.6	1.5	.3		10.0	.4	9.6
Nonpublic	3.4	1.3	.3	1.1	.4		6.5	.3	6.2
1968–69:									
Total	11.3	[10] 2.0	[11] .5	2.5	.9	[12] $1.3	18.5	.7	17.8
Public	7.4	1.2	.3	1.4	.4	.7	11.4	.5	10.9
Nonpublic	3.9	.8	.2	1.1	.5	.6	7.1	.2	6.9
1969–70:									
Total	13.0	[10] 2.2	[11] .6	2.8	1.0	[12] 1.5	21.1	.8	20.3
Public	8.7	1.3	.4	1.6	.5	.8	13.3	.6	12.7
Nonpublic	4.3	.9	.2	1.2	.5	.7	7.8	.2	7.6

See footnotes at end of table.

Table 42.—Expenditures from current funds and total current expenditures (current dollars) by institutions of higher education: United States, 1961–62 to 1973–74—Continued

[In billions of current dollars]

Year and control	Educational and general purposes						Total expenditures from current funds (sum of columns 2 through 7)	Capital outlay from current funds only	Total current expenditures [7] (column 8 less column 9)
	Student education [1]	Organized research [2]	Related activities [3]	Auxiliary enterprises [4]	Student aid [5]	Major public service [6]			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1970–71: [13]									
Total	14.9	[10] 2.3	[11] .8	3.0	1.2	[12] 1.7	23.9	.6	23.3
Public	10.1	1.4	.5	1.8	.6	.9	15.3	.5	14.8
Nonpublic	4.8	.9	.3	1.2	.6	.8	8.6	.1	8.5
1971–72: [13]									
Total	16.6	[10] 2.6	[11] .8	3.2	1.4	[12] 1.8	26.4	.6	25.8
Public	11.4	1.6	.5	1.9	.7	1.0	17.1	.5	16.6
Nonpublic	5.2	1.0	.3	1.3	.7	.8	9.3	.1	9.2
	PROJECTED [14]								
1972–73:									
Total	18.4	2.9	.9	3.4	1.5	2.0	29.1	.6	28.5
Public	12.3	1.7	.6	2.0	.8	1.1	19.0	.5	18.5
Nonpublic	5.0	1.2	.3	1.4	.7	.9	10.1	.1	10.0
1973–74:									
Total	20.5	3.1	1.1	3.6	1.7	2.2	32.2	.6	31.6
Public	14.4	1.9	.7	2.1	.9	1.2	21.2	.5	20.7
Nonpublic	6.1	1.2	.4	1.5	.8	1.0	11.0	.1	10.9

[1] Includes general administration, instruction and departmental research, extension and public services, libraries, operation and maintenance of the physical plant, and sponsored activities such as training institutes and related sponsored activities which were specifically financed by outside sources.

[2] Includes all sponsored research and other separately budgeted research through 1967–68. Beginning in 1968–69, expenditures of federally funded research and development centers are included with major public service programs.

[3] Includes expenditures for such categories as laboratory schools, medical school hospitals, dental clinics, home economics cafeterias, agricultural college creameries, college-operated industrial plants connected with instructional programs but not actually integral parts of them, and all other expenditures for educational and general activities which are not specifically identified as expended for "student education" or organized research. Beginning in 1968–69, expenditures for major public service programs formerly included under "related activities" are reported as a separate category.

[4] Auxiliary enterprises include student dormitories, dining halls, cafeterias, student unions, bookstores, faculty housing, athletic programs not part of the instructional program, lectures, concerts, and expenditures for plant assets from current funds which are not itemized under educational and general expenditures.

[5] Student aid includes only grants to students in the form of scholarships, fellowships, grants-in-aid, and prizes and awards for which no services are required of the student. Loans to students are not included.

[6] Formerly included with the educational and general group prior to 1968–69. Consists of federally funded research and development centers, hospitals, and other major public service programs.

[7] Current-fund expenditures less capital outlay from current funds.

[8] Not separately reported until 1968–69.

[9] Interpolated.

[10] Data for federally funded research and development centers are reported under major public service programs.

[11] Beginning in 1968–69, related activities classified as major public service are reported separately.

[12] Prior to 1968–69, major public service programs were included with several items under educational and general.

[13] Estimated.

[14] Projected by applying the 1967–68 to 1971–72 trend in the Consumer Price Index to the projected expenditures of current funds in constant dollars (table 41).

For further methodological details, see appendix A, table A–4.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: Expenditure data from U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Higher Education Finances*, 1961–62 and 1963–64; (2) *Financial Statistics of Institutions of Higher Education: Current Funds Revenues and Expenditures* and *Property and Physical Plant Assets*, 1965–66 and 1966–67; (3) *Financial Statistics of Institutions of Higher Education: Current Funds Revenues and Expenditures*, 1968–69; and (4) unpublished data in the Office of Education.

Table 43.—Capital outlay of institutions of higher education: United States, 1961–62 to 1981–82

Year	Total		Public		Nonpublic	
	Millions of current dollars	Millions of 1971–72 dollars	Millions of current dollars	Millions of 1971–72 dollars	Millions of current dollars	Millions of 1971–72 dollars
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1961–62	$1,714	$3,024	$1,010	$1,782	$704	$1,242
1962–63 [1]	2,534	4,364	1,596	2,748	938	1,616
1963–64	2,466	4,133	1,518	2,544	948	1,589
1964–65 [1]	2,825	4,616	1,595	2,606	1,230	2,010
1965–66	3,253	5,124	2,064	3,251	1,189	1,873
1966–67	3,943	5,876	2,573	3,834	1,370	2,042
1962–63 to 1966–67	15,021	24,113	9,346	14,983	5,675	9,130
1967–68	4,175	5,904	2,732	3,864	1,443	2,040
1968–69 [1]	4,297	5,614	3,218	4,204	1,079	1,410
1969–70	4,332	5,293	3,066	3,746	1,266	1,547
1970–71 [2]	4,128	4,591	3,195	3,553	933	1,038
1971–72 [2]	4,101	4,101	3,281	3,281	820	820
1967–68 to 1971–72	21,033	25,503	15,492	18,648	5,541	6,855
	PROJECTED [3]					
1972–73	4,045	3,774	3,341	3,117	704	657
1973–74	4,117	3,599	3,517	3,074	600	525
1974–75		3,436		2,958		478
1975–76		3,525		3,012		513
1976–77		3,437		2,971		466
1972–73 to 1976–77		17,771		15,132		2,639
1977–78		3,249		2,868		381
1978–79		3,010		2,703		307
1979–80		2,778		2,510		268
1980–81		2,532		2,283		249
1981–82		2,358		2,117		241
1977–78 to 1981–82		13,927		12,481		1,446

[1] Interpolation based on reported value of plant at close of previous year and beginning of following year.

[2] Estimated.

[3] The projection of capital outlay is based on two known factors: (1) The increase in value of plant during the base period, and (2) the annual increase in the number of full-time-equivalent students among all students in higher education, and a projection of the annual increase in the numbers of these students to fall 1981. The following assumptions were made: (1) Since the increase in value of plant did not represent total capital outlay, an estimate of the cost of replacement and rehabilitation at 1 percent of the value of plant at the end of each base period year was added. (2) Capital outlay per additional FTE student related reasonably well provided that a 5-year moving average was applied to the annual increases in FTE students and that decreases in the 5-year moving average be given only 50 percent weight and that minus decreases in the 5-year moving average be given zero weight. (3) The trends in capital outlay per FTE student would level off at the 1969–70 level and remain constant to 1981–82.

For further methodological details, see appendix A, table A–4.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: Capital outlay data from U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Higher Education Finances*, 1961–62 and 1963–64; (2) *Financial Statistics of Institutions of Higher Education: Property and Physical Plant Assets*, 1965–66, 1966–67, 1967–68; and (3) unpublished data in the Office of Education.

CHAPTER VI

Student Charges by Institutions of Higher Education

C. George Lind

Definition and limitations

Estimated average student charges are based on the charges reported by institutions of higher education for the years 1961–62 through 1964–65, 1966–67, and 1968–69, weighted by the number of full-time students attending the institutions. The charges were those to a typical undergraduate full-time resident-in-State student. Since reports on student attendance during the 1961–62 through 1964–65 and 1966–67 base years did not identify the full-time students as undergraduates, graduates, or nonresidents, the weighting factor assumes that graduates and nonresidents are charged the undergraduate and resident tuition and fees. Undergraduates were identified in reports on students for 1968–69.

Estimated average charges per student (entire academic year) (tables 44, 45)

The estimated average student charges (tuition and required fees, board, and room) by publicly controlled institutions of higher education, in 1971–72 constant dollars, increased from $1,189 in 1961–62 to $1,334 in 1971–72 and are expected to reach $1,516 by 1981–82 (table 44). Estimated average student charges by nonpublicly controlled institutions of higher education were $2,280 in 1961–62, $2,875 in 1971–72, and are expected to reach $3,566 by 1981–82.

Tuition and required fees are largely responsible for the increases in student charges. Tuition and fees, in constant 1971–72 dollars, charged by publicly controlled institutions rose from $298 in 1961–62 to $363 in 1971–72 and are expected to reach $440 by 1981–82.

Nonpublicly controlled institutions charged an estimated average tuition and fee of $1,240 in 1961–62, $1,765 in 1971–72, and are projected to be charging $2,327 by 1981–82. Required fees are those for matriculation, laboratory, library, health, etc., but do not include books. Charges for tuition and required fees vary to a considerable extent by control and type of institution. Two factors bear upon the variation: (1) income of public institutions from government sources and (2) the varying cost of educating a student in different types of institutions.

The charges for board, while increasing slightly during the base period (table 44), when adjusted to constant 1971–72 dollars (table 44) had declined slightly in all but nonpublic 2-year institutions. The declines are not projected and, in effect, the assumption is made that the many large institutions which had held their board charges unchanged, in current unadjusted dollars, will not be able to continue that practice during the next decade.

Nonpublicly controlled institutions generally charge more than publicly controlled institutions for dormitory rooms, and universities generally charge more than other types of institutions for dormitory rooms. However, the rate of the increases in charges for dormitory rooms is not markedly dissimilar by either control or type of institution, and the variations in the charges may be ascribed to the level of accommodation afforded.

Table 44.—Estimated average charges (1971–72 dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1961–62 to 1981–82

[Charges are for the academic year and in constant 1971–72 dollars]

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13	(14)	(15)	(16)	(17)
1961–62: [1]																
Public	$1,189	$1,297	$1,079	$819	$298	$363	$249	$120	$579	$593	$560	$487	$312	$341	$270	$212
Nonpublic	2,280	2,575	2,149	1,639	1,240	1,449	1,147	735	646	684	635	584	394	442	367	320
1962–63: [1]																
Public	1,218	1,333	1,101	831	300	362	260	131	588	617	545	488	330	354	296	212
Nonpublic	2,331	2,735	2,175	1,718	1,277	1,554	1,175	811	642	686	625	577	412	495	375	330
1963–64: [1]																
Public	1,235	1,368	1,128	839	312	375	287	129	580	624	532	481	343	369	309	229
Nonpublic	2,419	2,806	2,267	1,750	1,349	1,621	1,247	856	649	688	633	569	421	497	387	325
1964–65: [1]																
Public	1,251	1,383	1,141	839	320	392	295	130	574	608	529	475	357	383	317	234
Nonpublic	2,510	2,899	2,383	1,915	1,432	1,708	1,347	924	642	678	631	611	436	513	405	380
1965–66: [2]																
Public	1,266	1,423	1,162	863	332	421	309	140	572	610	525	473	362	392	328	250
Nonpublic	2,581	2,977	2,445	2,007	1,486	1,764	1,399	990	637	674	621	610	458	539	425	407
1966–67: [1]																
Public	1,282	1,463	1,184	837	344	450	324	151	571	612	521	470	367	401	339	266
Nonpublic	2,654	3,070	2,508	2,099	1,541	1,820	1,452	1,056	632	685	612	609	481	565	444	434

1967–68: [2]																
Public	1,285	1,449	1,205	953	342	442	324	173	565	600	528	486	378	407	353	294
Nonpublic	2,666	3,077	2,544	2,132	1,569	1,855	1,496	1,080	624	673	606	610	473	549	442	442
1968–69: [1]																
Public	1,289	1,436	1,226	1,019	340	435	324	196	560	587	535	502	389	414	367	321
Nonpublic	2,678	3,084	2,581	2,164	1,596	1,890	1,540	1,103	616	660	600	610	466	534	441	451
1969–70: [3]																
Public	1,304	1,460	1,247	1,042	348	449	336	205	557	586	531	502	399	425	380	335
Nonpublic	2,743	3,162	2,650	2,248	1,652	1,955	1,601	1,159	612	658	595	616	479	549	454	473
1970–71: [3]																
Public	1,319	1,485	1,268	1,066	355	464	349	214	554	585	526	502	410	436	393	350
Nonpublic	2,809	3,240	2,720	2,333	1,709	2,020	1,662	1,216	608	655	591	622	492	565	467	495
1971–72: [3]																
Public	1,334	1,509	1,289	1,087	363	478	361	222	551	584	522	501	420	447	406	364
Nonpublic	2,875	3,318	2,789	2,416	1,765	2,085	1,723	1,272	605	653	586	627	505	580	480	517
	PROJECTED [4]															
1972–73:																
Public	1,353	1,535	1,313	1,111	371	493	373	231	551	584	522	501	431	458	418	379
Nonpublic	2,944	3,399	2,862	2,500	1,821	2,150	1,783	1,328	605	653	586	633	518	596	493	539
1973–74:																
Public	1,370	1,560	1,339	1,134	378	507	386	240	551	584	522	501	441	469	431	393
Nonpublic	3,013	3,479	2,936	2,584	1,877	2,215	1,844	1,384	605	653	586	639	531	611	506	561
1974–75:																
Public	1,389	1,585	1,364	1,158	386	521	398	249	551	584	522	501	452	480	444	408
Nonpublic	3,083	3,559	3,010	2,669	1,934	2,280	1,905	1,441	605	653	586	645	544	626	519	583

See footnotes at end of table.

Table 44.—Estimated average charges (1971–72 dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1961–62 to 1981–82—Continued

[Charges are for the academic year and in constant 1971–72 dollars]

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13	(14)	(15)	(16)	(17)
1975–76:																
Public	$1,407	$1,610	$1,390	$1,181	$394	$536	$411	$258	$551	$584	$522	$501	$462	$490	$457	$422
Nonpublic	3,152	3,640	3,084	2,752	1,990	2,345	1,966	1,497	605	653	586	650	557	642	532	605
1976–77:																
Public	1,426	1,635	1,415	1,204	402	550	423	266	551	584	522	501	473	501	470	437
Nonpublic	3,221	3,720	3,158	2,836	2,046	2,410	2,027	1,553	605	653	586	656	570	657	545	627
1977–78:																
Public	1,443	1,661	1,439	1,227	409	565	435	275	551	584	522	501	483	512	482	451
Nonpublic	3,290	3,801	3,232	2,921	2,102	2,475	2,088	1,610	605	653	586	662	583	673	558	649
1978–79:																
Public	1,462	1,686	1,465	1,251	417	579	448	284	551	584	522	501	494	523	495	466
Nonpublic	3,360	3,882	3,305	3,005	2,159	2,541	2,148	1,666	605	653	586	668	596	688	571	671
1979–80:																
Public	1,480	1,711	1,490	1,274	425	593	460	293	551	584	522	501	504	534	508	480
Nonpublic	3,429	3,962	3,379	3,088	2,215	2,606	2,209	1,722	605	653	586	673	609	703	584	693

1980–81:															
Public	1,498	1,737	1,515	1,298	432	608	472	302	531	584	5[illegible]2	501	515	545	521	495
Nonpublic	3,498	4,043	3,453	3,172	2,271	2,671	2,270	1,778	605	653	5[illegible]6	679	622	719	597	715
1981–82:															
Public	1,516	1,762	1,541	1,320	440	622	485	310	551	584	522	501	525	556	534	509
Nonpublic	3,566	4,123	3,527	3,257	2,327	2,736	2,331	1,835	605	653	586	685	634	734	610	737

[1] Represents charges weighted by numbers of full-time degree-credit students 1961–62 through 1964–65; weighted by full-time resident students for 1966–67 and by full-time undergraduate degree-credit students for 1968–69. These charges, shown in table 45 in current dollars, were converted to 1971–72 constant dollars, by application of the Consumer Price Index. See constant dollar index, appendix B, table 6.

[2] Interpolated.

[3] Estimated.

[4] The projection of basic student charges is based on the assumption that these charges will continue to increase through 1981–82 as they did during the base years of 1961–62 through 1964–65, 1966–67, and 1968–69 in constant dollars. Decreases in charges for board during the base period are not projected and are frozen at the 1971–72 level. The base-year data for board charges, in current unadjusted dollars, did show increases for all types of institutions, both publicly and privately controlled, but not enough to offset the application of the Consumer Price Index for the computation of constant 1971–72 dollars.

For further methodological details, see appendix A, table 5.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Higher Education Basic Student Charges*, 1961–62 through 1964–65, 1966–67, and 1968–69; and (2) *Opening Fall Enrollment in Higher Education*, 1961 through 1964, 1966, and 1968.

Table 45.—Estimated average charges (current dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1961–62 to 1973–74

[Charges are for the academic year and in current unadjusted dollars]

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1961–62:																
Public	$869	$947	$788	$599	$218	$265	$182	$88	$423	$433	$409	$356	$228	$249	$197	$155
Nonpublic	1,666	1,882	1,570	1,198	906	1,059	838	537	472	500	464	427	288	323	268	234
1962–63:																
Public	901	986	814	615	222	268	192	97	435	456	403	361	244	262	219	157
Nonpublic	1,724	2 022	1,608	1,271	944	1,149	869	600	475	507	462	427	305	366	277	244
1963–64:																
Public	926	1,026	846	630	234	281	215	97	435	468	399	361	257	277	232	172
Nonpublic	1,815	2,105	1,700	1,313	1,012	1,216	935	642	487	516	475	427	316	373	290	244
1964–65:																
Public	950	1,051	867	638	243	298	224	99	436	462	402	361	271	291	241	178
Nonpublic	1,907	2,202	1,810	1,455	1,088	1,297	1,023	702	488	515	479	464	331	390	308	289
1965–66: [1]																
Public	983	1,106	903	671	258	327	240	109	444	474	408	367	281	305	255	195
Nonpublic	2,004	2,317	1,898	1,559	1,154	1,369	1,086	769	494	529	482	474	356	419	330	316
1966–67:																
Public	1,026	1,171	947	710	275	360	259	121	457	490	417	376	294	321	271	213
Nonpublic	2,124	2,456	2,007	1,679	1,233	1,456	1,162	845	506	548	490	487	385	452	355	347

1967–68: [1]																
Public	1,063	1,198	997	788	283	365	268	143	467	496	437	402	313	337	292	243
Nonpublic	2,204	2,544	2,103	1,762	1,297	1,534	1,237	893	516	556	501	504	391	454	365	365
1968–69:																
Public	1,117	1,245	1,063	883	295	377	281	170	485	509	464	435	337	359	318	278
Nonpublic	2,321	2,673	2,237	1,876	1,383	1,638	1,335	956	534	572	520	529	404	463	382	391
1969–70: [1]																
Public	1,196	1,340	1,144	957	319	412	308	188	511	538	487	461	366	390	349	308
Nonpublic	2,518	2,903	2,433	2,063	1,516	1,795	1,470	1,064	562	604	546	565	440	504	417	434
1970–71: [1]																
Public	1,274	1,434	1,224	1,029	343	448	337	207	535	565	508	484	396	421	379	338
Nonpublic	2,712	3,127	2,625	2,252	1,650	1,950	1,604	1,174	587	632	570	600	475	545	451	478
1971–72: [1]																
Public	1,334	1,509	1,289	1,087	363	478	361	222	551	584	522	501	420	447	406	364
Nonpublic	2,875	3,318	2,789	2,416	1,765	2,085	1,723	1,272	605	653	586	627	505	580	480	517
	PROJECTED															
1972–73: [1]																
Public	1,414	1,603	1,372	1,160	388	515	390	241	576	610	545	523	450	478	437	396
Nonpublic	3,075	3,551	2,989	2,611	1,902	2,246	1,862	1,387	632	682	612	661	541	623	515	563

See footnotes at end of table.

Table 45.—Estimated average charges (current dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1961–62 to 1973–74—Continued

[Charges are for the academic year and in current unadjusted dollars]

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1973–74: [1]																
Public	$,492	$1,699	$1,457	$1,235	$412	$552	$420	$261	$600	$636	$568	$546	$480	$511	$469	$428
Nonpublic	3,281	3,788	3,197	2,814	2,044	2,412	2,008	1,507	659	711	638	696	578	665	551	611

[1] Data for 1965–66, 1967–68, and 1969–70 through 1973–74 estimated by applying the Consumer Price Index to the data in table 44. See constant dollar index, appendix B, table 6.

For further methodological details, see appendix A, table 5.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Higher Education Basic Student Charges*, 1961–62 through 1964–65, 1966–67, and 1968–69; and (2) *Opening Fall Enrollment in Higher Education*, 1961 through 1964, 1966, and 1968.

APPENDIX A

General Methodology

Estimation Methods

Classification of Degrees by Field of Study

Changes in Degree-Level Definitions

Glossary

General Methodology

The 1972 projections of educational data by the U.S. Office of Education are based on reports of regular day schools, both public and private, and of accredited institutions of higher education listed in the Education Directory of the Office of Education.[1] The projections include enrollments at all levels, high school graduates, degrees by level and field, teacher and faculty demand, and expenditures in elementary and secondary schools and in institutions of higher education. Of these projections, those based directly on population were for: the number of children attending independent nursery and kindergarten schools, those attending kindergarten and first grade of regular public schools, enrollments in higher education, and high school graduates. The others, with the exception of enrollment in grades 2 through 12 of the public schools, degrees by level, and degrees by field, were based on enrollments. Enrollments in grades 2 through 12 of public schools were based on grade retention rates. (Retention rates could not be used for projecting higher education enrollments because the data on these enrollments have not been collected by year of enrollment.) Degrees by level were based on both enrollments and population, and degrees by field were based on enrollments and the distribution of total degrees by field.

Population aged 18–21 years was used for projecting college enrollments. It is recognized that not all college enrollments fall in this age group; nevertheless, in the absence of data on age of college students, it was assumed that college enrollment would be most affected by changes in the population aged 18–21 years. The population averaging 18 years of age was chosen for projecting both high school graduates and first-time college enrollment. This age group gave a smoother fit when correlated with these data than could be obtained with other age groups. For projecting kindergarten and first-grade enrollments, the populations aged 5 and 6 years, respectively, were used.

For estimating and projecting degrees, both population and enrollments were used. Estimates and projections in the beginning of the projected time period (1971–72 to 1974–75 for bachelor's degrees, 1971–72 to 1973–74 for first-professional degrees, 1971–72 for master's degrees, and 1971–72 to 1975–76 for doctor's degrees) were based on enrollments, while the remainder of the projections (through 1981–82) were based on a composite population.

The composite population is representative of the actual ages of the recipients of bachelor's degrees. (For details of estimating the population, see appendix A, "Estimation Methods," section 5.) Age at time of master's degrees was assumed to be 2 years older than at time of bachelor's degrees, and age at time of doctor's degrees was assumed to be 5 years older than at time of bachelor's degrees. The choices of average time elapsed between bachelor's degrees and master's degrees and between bachelor's degrees and doctor's degrees were made empirically.

For making the projections, regression methods were used wherever a trend could be established. Where no consistent series was available or the data were too irregular to establish a trend, a constant based on the latest observation or an average of the last two or three observations was used.

For some projections—such as graduate enrollments, enrollments in institutions of higher education by full-time and part-time attendance, and non-degree-credit enrollments—relationships had to be obtained from a different series of data and transferred to the opening fall higher education enrollment series. The latter series is current and has been reasonably consistent in the past, although prior to 1969 it lacked some detailed characteristics which are required by educators for decisionmaking.

For estimating trends, observations in the 11 most recent years were used, and the trend lines were extrapolated for 10 years into the future. The 11-year timespan was considered better than a longer timespan because of the rapid changes in economic and social conditions and the improvement in the available statistics in recent years.

Straight lines and logistic growth curves, fitted by the least squares technique to a ratio (for example, of enrollment to population) as the dependent variable and time in years as the independent variable were used for projecting most statistics.

Logistic growth curves of the form

$$y' = \frac{K}{1 + e^{-(a+bt)}}$$

were used when it was decided that continued straight-line growth would be unrealistic. Since the logistic growth curve is asymptotic (has an upper limit) to the value K, an upper limit must be selected based on consideration of the statistic being projected.

[1] U.S. Department of Health, Education, and Welfare, Office of Education, *Education Directory, 1972–73, Higher Education*, U.S. Government Printing Office, Washington, D.C., 1973.

For some statistics, selecting the upper limit is not too difficult. For example, the percentage of 5-year-olds enrolled in nursery or kindergarten can never exceed 100 percent.

However, for other statistics, selection of the upper limit is quite arbitrary. For example, the percentage that degree-credit enrollment is of the population aged 18–21 years could possibly exceed 100 percent since many other age groups are enrolled in degree-credit courses.

A logistic growth curve is fitted by making the transformation

$$z' = \log \frac{y'}{K - y'}$$

and then fitting a straight line to the z′ values. It should be noted that the standard error is in terms of the z′ values, not the y′ values.

For both the straight line and the logistic growth curve, the fitted curve often lies considerably above or below the last observed point, resulting in an unusual rise or drop from the last actual observation. To avoid this and give face validity to the projections, the fitted curve was used only to establish the last projected point, and a new curve was drawn through the last observed point and the end point on the fitted curve. (In this case, the fitted equation is used only to establish the ratio at the end of the 10-year span.)

For each major area (enrollments, degrees, teachers, and expenditures), the tables that follow outline the equations and constants that were used; the standard error and index of determination, when appropriate; and the adjusted equations, if used. Footnotes explain the meaning of the variables and constants used for estimating.

The tables are followed by sections which explain the methods used in estimating missing data of the past 10 years, define the meaning of terms as used by the Office of Education in requesting data, and outline the classification of summarized degree data.

Table A–1.—Methodology (Chapter II)

Item	Text table number	Projection method					
		Constant	Trend: Least squares equation (y = percent; t = year; 1961 = 1) [1]	Trend: Index of determination	Trend: Standard error	Trend: Adjusted equation [2]	Other
Fall enrollment (independent public kindergarten and nursery schools) [3]	2						[4]
3 years old [5]			$y' = 0.49 + 0.36t$	0.89	0.33	$y' = 0.12 + 0.38t$	
4 years old [6]			$y' = 40/[1+e^{(1.54-0.12t)}]$	.93	.085	$y' = 40/[1+e^{(1.57-0.12t)}]$	
5 years old [7]			$y' = 80/[1+e^{-(0.18+0.14t)}]$	.95	.085	$y' = 80/[1+e^{-(0.42+0.12t)}]$	
6 years old [8]		4.3					
Fall enrollment (independent nonpublic kindergarten and nursery schools) [3]	2						[9]
3 years old [10]			$y' = 1.71 + 0.97t$	.91	.79	$y' = 1.96 + 0.95t$	
4 years old [11]			$y' = 40/[1+e^{(1.73-0.16t)}]$	.98	.062	$y' = 40/[1+e^{(1.61-0.16t)}]$	
5 years old							[12]
6 years old [13]		21,000					
Fall enrollment (regular public day schools)	3						
Kindergarten [14]			$y' = 100/[1+e^{(0.199-0.091t)}]$	.93	.090	$y' = 100/[1+e^{(0.020-0.082t)}]$	
Grade 1 [15]		97.0					
Grade 2 [16]		94.3					
Grade 3 [17]		99.0					
Grade 4 [18]		99.0					
Grade 5 [19]		99.6					
Grade 6 [20]		99.6					
Grade 7 [21]			$y'_7(t) = y'_6(t-1) + 3.30C(t-1)$				
Grade 8 [22]		99.2					
Grade 9 [23]			$y'_9(t) = y'_8(t-1) + 5.30C(t-1)$				
Grade 10 [24]			$y' = 100/[1+e^{-(2.831+0.087t)}]$	.74	.18	$y' = 100/[1+e^{-(2.845+0.086t)}]$	
Grade 11 [25]		92.6					
Grade 12 [26]		91.5					
Elementary ungraded [27]			$y' = 0.57 + 0.13t$	.94	.12	$y' = 0.82 + 0.12t$	
Secondary ungraded [28]		2.40					

See footnotes at end of table.

Table A-1.—Methodology (Chapter II)—Continued

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (y = percent; t = year; 1961 = 1) [1]	Index of determination	Standard error	Adjusted equation [2]	
Postgraduate [29]	.....	10,000					
Organizational level [30]	4	62.3					
Fall enrollment (regular nonpublic day schools)	3, 4						
Grades kindergarten to 8	.....	.....	.....	.....	.....	.....	([31])
Grades 9 to 12	.....	.....	.....	.....	.....	.....	([32])
Degree-credit fall enrollment	6-8, 13						
Men, public 4-year institutions [33]	.....	.....	$y' = 40/[1+e^{-(0.033+0.139t)}]$	0.97	0.091	E = 1,699.9 + 71.2t	
Women, public 4-year institutions [34]	.....	.....	$y' = 40/[1+e^{(0.87-0.13t)}]$	.98	.073	y' = 13.63 + 1.01t	
Men, private 4-year institutions [35]	.....	1,200					
Women, private 4-year institutions [36]	.....	10.7					
Men, public 2-year institutions [37]	.....	.....	y' = 4.04 + 0.76t	.95	.63	y' = 3.71 + 0.77t	
Women, public 2-year institutions [37]	.....	.....	y' = 1.86 + 0.62t	.94	.57	y' = 2.19 + 0.6 1t	
Men, private 2-year institutions [35]	.....	50					
Women, private 2-year institutions [35]	.....	50					
Non-degree-credit fall enrollment	9-11						
Men, public 4-year institutions [38]	.....	30					
Women, public 4-year institutions [38]	.....	17					
Men, private 4-year institutions [39]	.....	0.19					
Women, private 4-year institutions [39]	.....	0.14					
Men, public 2-year institutions [40]	.....	.....	y' = 1.04 + 0.40t	.98	.20	y' = 1.85 + 0.36t	
Women, public 2-year institutions [40]	.....	.....	y' = 0.26 + 0.31t	.96	.21	y' = 1.30 + 0.26t	
Men, private 2-year institutions [39]	.....	0.11					
Women, private 2-year institutions [39]	.....	0.12					
Full-time non-degree-credit fall enrollment [41]	9-11						
Men, public 4-year institutions	.....	59.0					
Women, public 4-year institutions	.....	60.0					
Men, private 4-year institutions	.....	48.0					
Women, private 4-year institutions	.....	52.0					
Men, public 2-year institutions	.....	48.0					

Table A-1.—Methodology (Chapter II)—Continued

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (y = percent; t = year; 1961 = 1) [1]	Index of determination	Standard error	Adjusted equation [2]	
Women, public 2-year institutions		45.0					
Men, private 2-year institutions		68.0					
Women, private 2-year institutions		86.0					
Full-time-equivalent degree-credit fall enrollment [42]	12						
Public institutions		33.0					
Private institutions		33.0					
Full-time-equivalent non-degree-credit fall enrollment [43]	12						
Public institutions		28.0					
Private institutions		28.0					
First-time degree-credit fall enrollment	14-16						
Men, public 4-year institutions [44]			$y' = 25/\left[1+e^{-(0.770+0.069t)}\right]$	0.54	0.22	$y' = 14.25 + 0.40t$	
Women, public 4-year institutions [44]			$y' = 25/\left[1+e^{-(0.037+0.092t)}\right]$	.87	.13	$y' = 11.58 + 0.49t$	
Men, private 4-year institutions [45]			$y' = 2.638 - 0.025t$	.93	.024	$E = 240.89 - 3.40t$	
Women, private 4-year institutions [45]			$y' = 9.921 - 0.082t$	.76	.16	$E = 186.20 - 1.20t$	
Men, public 2-year institutions [44]			$y' = 30/\left[1+e^{(1.13-.15t)}\right]$	.90	.18	$y' = 6.72 + 0.94t$	
Women, public 2-year institutions [44]			$y' = 30/\left[1+e^{(1.73-.14t)}\right]$	.93	.13	$y' = 1.20 + 1.07t$	
Men, private 2-year institutions [46]		25,000					
Women, private 2-year institutions [46]		25,000					
Full-time first-time degree-credit fall enrollment [47]	14-16						
Men, public 4-year institutions		90.0					
Women, public 4-year institutions		90.0					
Men, private 4-year institutions		91.0					
Women, private 4-year institutions		92.0					
Men, public 2-year institutions		64.0					
Women, public 2-year institutions		55.0					

Table A-1.—Methodology (Chapter II)—Continued

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (y = percent; t = year; 1961 = 1) [1]	Index of determination	Standard error	Adjusted equation [2]	
Men, private 2-year institutions	.....	88.0					
Women, private 2-year institutions	.....	88.0					
Graduate fall enrollment (4-year institutions)	17						
Men, public institutions [48]	.....	15.0					
Women, public institutions [49]	.....	.....	$y' = 15/[1+e^{-(0.088+0.165t)}]$	0.99	0.043	$y' = 11.26 + 0.16t$	
Men, private institutions [48]	.....	15.8					
Women, private institutions [48]	.....	12.0					
Full-time graduate fall enrollment (4-year institutions) [50]	17						
Men, public institutions	.....	48.5					
Women, public institutions	.....	33.7					
Men, private institutions	.....	44.8					
Women, private institutions	.....	38.4					
Full-time undergraduate and first-professional degree-credit fall enrollment (4-year institutions) [51]	19						
Men, public institutions	.....	80.0					
Women, public institutions	.....	77.0					
Men, private institutions	.....	80.0					
Women, private institutions	.....	80.0					
Full-time undergraduate degree-credit fall enrollment (2-year institutions) [52]	8						
Men, public institutions	.....	56.0					
Women, public institutions	.....	46.0					
Men, private institutions	.....	80.0					
Women, private institutions	.....	80.0					

[1] If a computer is not available, tables of exponential functions, which are found in most books of mathematical tables, may be used to simplify computations of projected values from logistic growth curves.

[2] Unless otherwise noted, adjusted by relocating curve through last observed point and 1981 point of fitted curve.

[3] First observation is for 1964.

[4] Total public kindergarten and nursery school enrollment less kindergarten enrollment in regular public day schools.

[5] y = percent 3-year-olds enrolled in public kindergarten and nursery schools is of population aged 3 years.

[6] y = percent 4-year-olds enrolled in public kindergarten and nursery schools is of population aged 4 years.

[7] y = percent 5-year-olds enrolled in public kindergarten and nursery schools is of population aged 5 years.

[8] Constant = percent in 1971 that 6-year-olds enrolled in public kindergarten and nursery schools is of population aged 6 years.

[9] Total nonpublic kindergarten and nursery school enrollment less kindergarten enrollment in regular nonpublic day schools.

[10] y = percent 3-year-olds enrolled in private kindergarten and nursery schools is of population aged 3 years.

[11] y = percent 4-year-olds enrolled in private kindergarten and nursery schools is of population aged 4 years.

[12] Arbitrarily reduced 5,000 per year through 1981.

[13] Constant = enrollment of 6-year-olds in private kindergarten and nursery schools in 1971.

[14] y = percent kindergarten enrollment is of population aged 5 years.

[15] Constant = percent in 1971 that 1st-grade enrollment is of population aged 6 years.

[16] Constant = percent in 1971 that grade 2 is of grade 1 in preceding year.

[17] Constant = percent in 1971 that grade 3 is of grade 2 in preceding year.

[18] Constant = percent grade 4 in 1971 is of grade 3 in preceding year.

[19] Constant = percent grade 5 in 1971 is of grade 4 in preceding year.

[20] Constant = percent grade 6 in 1971 is of grade 5 in preceding year.

[21] $y_7(t)$ = enrollment in grade 7 in year t; $y_6(t-1)$ = enrollment in grade 6 in year t–1; C(t–1) = enrollment in grades K–8 of Catholic schools in year t–1. For projections of enrollments in grades K–8 of Catholic schools, see footnote 6, part 5, table 3.

[22] Constant = percent grade 8 in 1971 is of grade 7 in preceding year.

[23] $y_9(t)$ = enrollment in grade 9 in year t; $y_8(t-1)$ = enrollment in grades K–8 of Catholic schools in year t–1; C(t–1) = enrollment in grades K–8 of Catholic schools in year t–1. For projections of enrollment in grades K–8 of Catholic schools, see footnote 6, part 5, table 3.

[24] y = percent grade 10 is of grade 9 in preceding year with restriction that percent cannot exceed 100.

[25] Constant = percent grade 11 in 1971 is of grade 10 in preceding year.

[26] Constant = percent grade 12 in 1971 is of grade 11 in preceding year.

[27] y = percent elementary ungraded enrollment is of population aged 5 to 13.

[28] Constant = 1971 percent that secondary ungraded enrollment is of population aged 14 to 17.

[29] Constant = postgraduate enrollment in 1971.

[30] Constant = 1971 percent that 7th and 8th grades organized as secondary are of total 7th and 8th grades.

[31] Approximations based on the assumption that the number of enrollments in grades K–8 in nonpublic schools will continue to decrease to 1981.

[32] Approximations based on the assumption that the number of enrollments in grades 9–12 in nonpublic schools will remain at the 1970 level through 1981.

[33] y = percent opening fall degree-credit enrollment is of population aged 18–21 years. E = opening fall degree-credit enrollment in thousands.

The adjusted equation was determined by locating a straight line through the 1981 projected opening fall degree-credit enrollment and the 1971 reported opening fall degree-credit enrollment.

[34] y = percent opening fall degree-credit enrollment is of population aged 18–21 years. The adjusted equation was determined by locating a straight line through the fitted point for 1981 and an arbitrarily selected point for 1972.

[35] Constant = approximately the 1971 fall degree-credit enrollment in thousands.

[36] Constant = 1971 percent that opening fall degree-credit enrollment was of the population aged 18–21 years.

[37] y = percent opening fall degree-credit enrollment is of population aged 18–21 years.

[38] Constant = approximately the 1971 opening fall non-degree-credit enrollment in thousands.

[39] Constant = 1971 percent that opening fall non-degree-credit enrollment was of population aged 18–21 years.

[40] y = percent that opening fall non-degree-credit enrollment is of population aged 18–21 years.

[41] Constant = percent in 1971 that full-time non-degree-credit enrollment was of total non-degree-credit enrollment.

[42] Constant = percent that full-time equivalent of part-time degree-credit enrollment was of part-time degree-credit enrollment in the 1964 full-time-equivalent enrollment and credit-hours survey (percent same in publicly and privately controlled institutions).

[43] Constant = percent full-time equivalent of part-time non-degree-credit enrollment was of part-time non-degree-credit enrollment in the 1964 full-time-equivalent enrollment and credit-hours survey (percent same in publicly and privately controlled institutions).

[44] y = percent that 1st-time opening fall degree-credit enrollment is of population aged 18 at nearest birthday. The adjusted equation was determined by locating a straight line through the fitted point for 1981 and an arbitrarily selected point for 1972.

[45] y = percent that 1st-time opening fall degree-credit enrollment is of population aged 18 at nearest birthday. E = 1st-time opening fall degree-credit enrollment in thousands. The adjusted equation was determined by locating a straight line through the 1981 projected 1st-time opening fall degree-credit enrollment and the 1971 reported 1st-time opening fall degree-credit enrollment.

[46] Constant = approximately the 1st-time opening fall degree-credit enrollment in 1971.

[47] Constant = percent in 1971 that full-time 1st-time degree-credit opening fall enrollment was of total 1st-time degree-credit opening fall enrollment.

[48] Constant = percent that resident graduate degree-credit enrollment was of total resident and extension degree-credit enrollment in 1971.

[49] y = percent that resident graduate degree-credit enrollment is of total resident and extension degree-credit enrollment. The adjusted equation was determined by locating a straight line through the fitted point for 1981 and the 1971 observed point.

[50] Constant = percent in 1971 that full-time graduate enrollment was of total graduate enrollment.

[51] Constant = percent in 1971 that full-time undergraduate and first professional degree-credit enrollment was of total undergraduate and first-professional degree-credit enrollment.

[52] Constant = percent in 1971 that full-time opening fall degree-credit enrollment was of total opening fall degree-credit enrollment.

Table A-2.—Methodology (Chapter III)

Item	Text table number	Projected method					
		Constant (percent)	Trend				Other
			Least squares equation (y = percent; t = year; 1960-61 = 1) [1]	Index of determination	Standard error	Adjusted equation [2]	
High school graduates	20						
Public [3]:							
Men			$y' = 90/[1+e^{-(0.512+0.057t)}]$	0.78	0.105	$y' = 90/[1+e^{-(0.202+0.071t)}]$	
Women			$y' = 90/[1+e^{-(0.683+0.56t)}]$	.81	.095	$y' = 90/[1+e^{-(0.403+0.069t)}]$	
Nonpublic [4]		[5] 48.1					
Bachelor's degrees conferred on men [6]	21	53.3	$y' = 35/[1+e^{-(0.370+0.099t)}]$	.85	.146	$y' = 35/[1+e^{-(0.261-0.129t)}]$	
Selected fields [7]	23						
Social sciences [8]		21.00					
Psychology [9]			$y' = 1.97 + 0.23t$	.99	.061	$y' = 1.87 + 0.23t$	
Public affairs and services [9]			$y' = 0.45 + 0.05t$	([10])	([10])		
Library sciences [8]		.02					
Architecture and environmental design [8]		1.00					
Fine and applied arts [9]			$y' = 1.50 + 0.10t$	([10])	([10])		
Foreign languages [8]		1.00					
Communications [8]		1.47					
Letters [8]		6.00					
Mathematics and statistics [9]			$y' = 4.714 - 0.083t$	.47	.309	$y' = 3.52 - 0.026t$	
Computer and information sciences [9]			$y' = -0.10 + 0.05t$	([10])	([10])		
Engineering							([11])
Physical science [9]			$y' = 6.25 - 0.21t$	.98	.10	$y' = 6.03 - 0.20t$	
Biological sciences [8]		5.30					
Agriculture and natural resources		2.50					
Health professions [8]		1.25					
Accounting [8]		4.20					
Other business and management [9]			$y' = 15.70 + 0.20t$	([10])	([10])		
Education [9]			$y' = 6/[1-e^{-(0.782+0.032t)}]$	.74	.068	$y' = 6/[1-e^{-(0.497+0.046t)}]$	
Other [8]		2.91					

See footnotes at end of table.

Table A–2.—Methodology (Chapter III)—Continued

Item	Text table number	Projected method						
		Constant (percent)	Trend					Other
				Least squares equation (y = percent; t = year; 1960–61 = 1) [1]	Index of determination	Standard error	Adjusted equation [2]	
Bachelor's degrees conferred on women [6]	21		54.35	$y' = 35/[1+e^{(0.370-0.099t)}]$	0.97	0.059	$y' = 35/[1+e^{(0.639-0.112t)}]$	
Selected fields [7]	23							
Social sciences [9]				$y' = 18/[1+e^{-(0.078+0.201t)}]$	.97	.119	$y' = 18/[1+e^{(0.286-0.219t)}]$	
Psychology [9]				$y' = 1.87 + 0.23t$	.95	.18	$y' = 2.38 + 0.20t$	
Public affairs and services [8]			1.30					
Library sciences [8]			0.25					
Architectural and environmental design [8]			0.18					
Fine and applied arts [8]			5.00					
Foreign languages [8]			4.00					
Communications [8]			1.10					
Letters [8]			12.20					
Mathematics and statistics [8]			2.50					
Computer and information sciences [9]				$y' = -0.026 + 0.008t$	.74	.016	$y' = 0.037 + .005t$	
Engineering [8]			0.11					
Physical sciences [9]				$y' = 0.5/[1-e^{-(0.346+0.051t)}]$	.97	.032	$y' = 0.5/[1-e^{-(0.447+0.047t)}]$	
Biological sciences [8]			2.80					
Agriculture and natural resources [8]			0.15					
Health professions								[12]
Accounting [9]				$y' = 0.271 + 0.025t$	.90	.029	$y' = 0.330 + 0.022t$	
Other business and management [8]			2.30					
Education [9]				$y' = 30/[1-e^{-(0.933+0.091t)}]$	.93	.086	$y' = 30/[1-e^{-(0.600+0.107t)}]$	
Other [8]			4.40					
Master's degrees conferred on men [13]	21	45.00,	8.35					
Selected fields [7]	24							
Social sciences [4]			9.00					
Psychology [14]			2.00					
Public affairs and services [14]			3.10					

Table A–2.—Methodology (Chapter III)—Continued

Item	Text table number	Projected method					Other
		Constant (percent)	Trend				
			Least squares equation (y = percent; t = year; 1960–61 = 1) [1]	Index of determination	Standard error	Adjusted equation [2]	
Library sciences [14]			1.00				
Architecture and environmental design [14]			1.10				
Fine and applied arts [14]			2.50				
Foreign languages [14]			1.20				
Communications [14]			0.90				
Letters [14]			3.90				
Mathematics and statistics [14]			2.70				
Computer and information sciences [14]			1.00				
Engineering [15]		.....	..... $y' = 13.80 - 0.20t$	([10])	([10])		
Physical sciences [14]			4.00				
Biological sciences [14]			3.00				
Agriculture and natural resources [14]			1.70				
Health professions [14]			1.80				
Accounting [14]			0.70				
Other business and management [15]		.....	..... $y' = 15.60 + 0.20t$	([10])	([10])		
Education [14]			28.00				
Other [14]			3.00				
Master's degrees conferred on women [16]	21		45.12 $y' = 8/\left[1+e^{(1.15-0.17t)}\right]$	0.96	0.11	$y' = 8/\left[1+e^{(1.30-0.18t)}\right]$	
Selected fields [7]	24						
Social sciences [14]			5.50				
Psychology [14]			1.78				
Public affairs and services [14]			4.32				
Library sciences [14]			6.16				
Architecture and environmental design [15]		.....	..... $y' = 0.15 + 0.01t$	([10])	([10])		
Fine and applied arts [14]			3.43				
Foreign languages [15]		.....	..... $y' = 4.50 - 0.10t$	([10])	([10])		
Communications [14]			0.70				

Table A-2.—Methodology (Chapter III)—Continued

Item	Text table number	Projected method					
		Constant (percent)	Trend				Other
			Least squares equation (y = percent; t = year; 1960–61 = 1) [1]	Index of determination	Standard error	Adjusted equation [2]	
Letters [15]	.....	.....	.....	y′ = 9.00 – 0.10t	([10])	([10])	
Mathematics and statistics [15]	.....	.....	.....	y′ = 1.97 – 0.03t	([10])	([10])	
Computer and information sciences [15]	.....	.....	.....	y′ = – 0.04 + 0.02t	([10])	([10])	
Engineering [14]	.....		0.20				
Physical sciences [15]	.....	.....	.....	y′ = 1.14 – 0.02t	([10])	([10])	
Biological sciences [15]	.....	.....	.....	y′ = 2.41 – 0.03t	([10])	([10])	
Agriculture and natural resources [14]	.....		0.16				
Health professions [15]	.....	.....	.....	y′ = 2.30 + 0.10t	([10])	([10])	
Accounting [14]	.....		0.11				
Other business and commerce [15]	.....	.....	.....	y′ = 0.45 + 0.05t	([10])	([10])	
Education [14]	.....		54.00				
Other [15]	.....	.....	.....	y′ = 3.23 – 0.03t	([10])	([10])	
Doctor's (except first-professional) degrees conferred on men [17]	21	11.50,	2.10				
Selected fields [7]	25						
Social sciences [18]	.....	12.00,	11.50				
Psychology [18]	.....	23.00,	5.30				
Public affairs and services [18]	.....	5.00,	0.48				
Library sciences [18]	.....	2.00,	0.09				
Architecture and environmental design [18]	.....	4.50,	0.13				
Fine and applied arts [18]	.....	8.00,	2.05				
Foreign languages [18]	.....	12.00,	1.35				
Communications [19]	.....		0.45				
Letters [19]	.....		6.70				
Mathematics and statistics [18]	.....	10.00,	3.85				
Computer and information sciences [20]	.....	.....	.....	y′ = – 0.10 + 0.05t	([10])	([10])	
Engineering [18]	.....	11.50,	11.50				

Table A–2.—Methodology (Chapter III)—Continued

Item	Text table number	Projected method					
		Constant (percent)	Trend				Other
			Least squares equation (y = percent; t = year; 1960–61 = 1) [1]	Index of determination	Standard error	Adjusted equation [2]	
Physical sciences [21]			28.00	y′ = 14.50 – 0.25t	([10])	([10])	
Biological sciences [18]		30.00,	10.00				
Agriculture and natural resources [18]		34.00,	3.50				
Health professions [18]		12.50,	1.40				
Accounting [18]		1.90,	0.14				
Other business and management [21]			2.00	y′ = 1.60 + 0.10t	([10])	([10])	
Education [22]				y′ = 6.80 + 0.20t, y′ = 15.20 + 0.40t	([10])	([10])	
Other [19]			1.65				
Doctor's (except first-professional) degrees conferred on women [23]	21		3.64	y′ = 0.120 + 0.020t	([10])	([10])	
Selected fields [7]	25						
Social sciences [18]		6.00,	11.00				
Psychology [21]			15.80	y′ = 7.60 + 0.20t	([10])	([10])	
Public affairs and services [18]		1.10,	0.80				
Library sciences [19]			0.24				
Architecture and environmental design [19]			0.05				
Fine and applied arts [18]		3.00,	3.70				
Foreign languages [18]		6.00,	5.40				
Communications [19]			0.40				
Letters [18]		5.50,	10.00				
Mathematics and statistics [18]		3.25,	2.03				
Computer and information sciences [19]			0.05				
Engineering [18]		9.00,	0.70				
Physical sciences [18]		14.30,	4.65				
Biological sciences [21]			16.75	y′ = 14.50 – 0.20t	([10])	([10])	
Agriculture and natural resources [21]			25.00	y′ = 0.02 + 0.07t	([10])	([10])	

Table A-2.—Methodology (Chapter III)—Continued

Item	Text table number	Projected method						
		Constant (percent)	Trend					Other
				Least squares equation (y = percent; t = year; 1960-61 = 1) [1]	Index of determination	Standard error	Adjusted equation [2]	
Health profession [22]				$y' = 0.50 + 0.25t$	([10])	([10])		
Accounting [18]		2.25,	0.09					
Other business and management [19]			.50					
Education [18]		2.10,	31.30					
Other [19]			2.20					
First-professional degrees conferred on men [24]	21		92.00	$y' = 2.268 + 0.065t$	0.58	0.195	$y' = 3.160 + 0.015t$	
Selected fields	26							
Medicine								([25])
Dentistry								([25])
Other health professions								([25])
Law								([26])
Other [27]			14.70					
First-professional degrees conferred on women [24]	21		91.00	$y' = 0.024 + 0.021t$	.78	.039	$y' = 0.239 + 0.009t$	
Selected fields	26							
Medicine								([25])
Dentistry								([25])
Other health professions								([25])
Law								([26])
Other [27]			7.7					

[1] If a computer is not available, tables of exponential functions, which are found in most books of mathematical tables, may be used to simplify the computation of a projected value from a logistic growth curve.

[2] Adjusted by relocating curve through last observed point and 1981–82 point of fitted curve.

[3] y = percent that public high school graduates are of population averaging 18 years of age for men and women separately.

[4] Assumes approximately no change in number of nonpublic high school graduates through 1981.

[5] Constant = percent that boys were of nonpublic high school graduates in 1964–65.

[6] Constant = percent that bachelor's degrees in 1970–71 were of 1st-time degree-credit enrollment 4 years earlier. This constant was used to determine the 1971–72 to 1974–75 projections. y = percent that bachelor's degrees are of the composite population. The extrapolated percentages were used to determine the 1975–76 to 1981–82 projections (1964–65 = 1).

[7] Projections of degrees by field of study are based on the assumption that for each field, the percentage that degrees in the field are of degrees in all fields will follow past trends. However, when the projected percentages for each field are summed over all fields, the sum for each projected year does not usually add to 100 percent. Therefore, for each year, the projected percentages for individual fields that are obtained from the equations in this table are prorated so that they add to 100 percent.

[8] Constant = percent in 1970–71 that bachelor's degrees in this field were of all bachelor's degrees.

[9] y = percent that bachelor's degrees in these selected fields are of all bachelor's degrees.

[10] Not applicable; straight line trend determined arbitrarily.

[11] Engineering degrees for both men and women are projected in the following manner: (A) Engineering technology degrees are projected separately and the number of these degrees is arbitrarily projected to increase to 5,500 in 1971–72 and then increase 500 degrees each year to 10,500 degrees in 1981–82. (B) The projections of engineering degrees for 1971–72 through 1975–76 are based on the assumption that the percentage that engineering graduates are of freshmen enrollment in engineering programs 4 years earlier will increase 1 percent each year over the 1970–71 percentage of 58 percent. (C) The projections of engineering degrees for 1976–77 to 1981–82 are based on the assumption that the 1975–76 percentage that projected engineering degrees are of the projection of total bachelor's degrees will remain constant at 33 percent. (D) Engineering technology degrees and engineering degrees are added together to obtain total engineering degrees. (E) Total engineering degrees conferred on men is the difference between total engineering degrees and total engineering degrees conferred on women. The method of projecting engineering degrees conferred on women is described further on in this table.

[12] Nursery and other health professions were projected separately and then added together. Projections of nursing graduates were made by the Bureau of Health Manpower Education, National Institutes of Health. These projections are based on current levels of Federal support. Projections of other health professions are based on the assumption that the percentage that these degrees were of total degrees in 1970–71 (2.06 percent) will remain approximately constant to 1981–82.

[13] First constant = percent that master's degrees in 1970–71 were of the estimated average 1st-year enrollment for advanced degrees, 1 and 2 years earlier. This constant was used to determine the 1971–72 projections. Second constant = percent that 1971–72 projection of master's degrees is of the composite population, 2 years earlier. This constant was used to determine the 1972–73 to 1981–82 projections.

[14] Constant = percent in 1970–71 that master's degrees in the field were of all master's degrees in 1970–71.

[15] y = percent that master's degrees in this field are of all master's degrees.

[16] Constant = percent that master's degrees in this field in 1970–71 were of the average 1st-year enrollment for advanced degrees in the same field, 1 and 2 years earlier. This constant was used to determine the 1971–72 projection. y = percent that master's degrees in this field are of all master's degrees. The extrapolated percentages were used to determine the 1972–73 to 1981–82 projections.

[17] First constant = percent that doctor's degrees in 1970–71 were of the average 1st-year enrollment for advanced degrees, 5 and 6 years earlier. This constant was used to determine the 1971–72 to 1975–76 projections. Second constant = percent that projected doctor's degrees in 1975–76 are of the composite population, 5 years earlier. This constant was used to determine the 1976–77 to 1981–82 projections.

[18] First constant = percent that doctor's degrees in this field in 1970–71 were of the average 1st-year enrollment for advanced degrees in the same field, 5 and 6 years earlier. This constant was used to determine the 1971–72 to 1974–75 projections. Second constant = percent that the 1974–75 projection of doctor's degrees in this field is of the 1975–76 projection of total doctor's degrees. This constant was used to determine the 1976–77 to 1981–82 projections.

[19] Constant = percent that doctor's degrees in this field in 1970–71 were of total doctor's degrees in 1970–71.

[20] y = percent that doctor's degrees in this field are of total doctor's degrees.

[21] Constant = percent that doctor's degrees in this field in 1970–71 were of the average 1st-year enrollment for advanced degrees in the same field, 5 and 6 years earlier. This constant was used to determine the 1971–72 to 1974–75 projections.

y = the percent that doctor's degrees in this field are of all doctor's degrees. These percents were used to determine the 1975–76 to 1981–82 projections.

[22] First y′ = percent that doctor's degrees in this field are of the average 1st-year enrollment for advanced degrees in the same field, 5 and 6 years earlier. These percents were used to determine the 1971–72 to 1974–75 projections. Second y′ = percent that doctor's degrees in this field are of all doctor's degrees. These percents were used to determine the 1975–76 to 1981–82 projections.

[23] Constant = percent that doctor's degrees in 1970–71 were of the average 1st-year enrollment for advanced degrees, 5 and 6 years earlier. This constant was used to determine the 1971–72 to 1975–76 projections. y = percent that doctor's degrees are of the composite population, 5 years earlier. The extrapolated percentages from this curve were used to determine the 1976–77 to 1981–82 projections.

[24] Constant = percent that first-professional degrees in 1970–71 were of the average 1st-year enrollment for first-professional degrees, 3 and 4 years earlier. This constant was used to determine projections for 1971–72 to 1973–74. y = percent that first-professional degrees are of composite population 3 years earlier.

[25] These projections were made by the Bureau of Health Manpower Education, National Institutes of Health, and are based on output resulting from support in the Comprehensive Health Manpower Training Act of 1971.

[26] Projections of law degrees were computed for each year by subtracting the sum of projected first-professional degrees in the other 4 categories from the projection of total first-professional degrees.

[27] Constant = percent that first-professional degrees in this field in 1970–71 were of total first-professional degrees in 1970–71.

Table A-3.—Methodology (Chapter IV)

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (y = percent; t = year; 1961 = 1) [1]	Index of determination	Standard error	Adjusted equation [2]	
Classroom teachers in regular day schools	26						
Public elementary							[3]
Public secondary							[3]
Nonpublic elementary							[3]
Nonpublic secondary							[3]
Pupil–teacher ratios in regular elementary and secondary day schools	27						
Public elementary [4]			$y'=20/\left[1+e^{-(1.062+0.060t)}\right]$	0.92	0.060	$y'=20/\left[1+e^{-(1.082+0.059t)}\right]$	
Public secondary [4]			$y'=18/\left[1+e^{-(1.645+0.070t)}\right]$	.93	.070	$y'=18/\left[1+e^{-(1.506+0.077t)}\right]$	
Nonpublic elementary [4]			$y'=22/\left[1+e^{-(0.823+0.069t)}\right]$	.99	.021	$y'=22/\left[1+e^{-(0.846+0.068t)}\right]$	
Nonpublic secondary [5]		18.3					
Demand for classroom teachers in public regular day schools	28						
For enrollment increase							[6]
For teacher turnover [7]		8.0					
For reduction of pupil–teacher ratio							[8]
Demand for classroom teachers in nonpublic regular day schools	29						
For enrollment increase							[6]
For teacher turnover [9]		4.0					
For reduction of pupil–teacher ratio							[8]
Instructional staff in regular elementary and secondary day schools	30						
Public [10]		111.0					
Nonpublic							[11]

See footnotes at end of table

Table A–3.—Methodology (Chapter IV)—Continued

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (y = percent; t = year; 1961 = 1) [1]	Index of determination	Standard error	Adjusted equation [2]	
Total instructional staff for resident courses	31						
Public 4–year institutions [12]		14.6					
Private 4–year institutions [12]		10.3					
Public 2–year institutions [12]		24.0					
Private 2–year institutions [13]			$y' = 15.292 - 0.062t$	([14])	([14])		
Instructor or above [15]		81.7					
Full–time [16]		78.0					
Junior instructional staff [17]		18.3					
Full–time [18]		17.0					
Full–time–equivalent instructional staff for resident courses	32						
Full–time equivalent of part time:							
Instructor or above [19]		35.0					
Junior instructional staff [20]		41.0					
Total demand for estimated full–time–equivalent instructional staff in institutions of higher education	33						
Demand for additional instructional staff:							
For increased enrollment and changes of student staff ratio							([21])
For replacement [22]		6.0					

[1] If a computer is not available, tables of exponential functions, which are found in most books of mathematical tables, may be used to simplify computations of projected values from logistic growth curves.
[2] Adjusted by relocating curve through last observed point and 1981 point on fitted curve.
[3] Projected enrollment (table 3) divided by projected pupil-teacher ratio (table 27) calculated separately for each type of school by control and level.
[4] y = ratio of number of pupils to number of teachers.
[5] Constant = estimated 1971 ratio of number of pupils to number of teachers.
[6] Total teacher demand in a given year less total teacher demand in the previous year less the number of teachers needed for pupil-teacher ratio changes.
[7] 8 percent of total teacher demand in each previous year.
[8] The enrollment divided by the pupil-teacher ratio of a given year less the same enrollment divided by the pupil-teacher ratio of the previous year.
[9] 4 percent of total teacher demand in each previous year.
[10] Constant = ratio of instructional staff to classroom teachers (staff-teacher ratio times projected classroom teachers = projected instructional staff).
[11] Number of instructional staff assumed same as number of classroom teachers.
[12] Constant = 1968 ratio of enrollment to instructional staff for resident courses.
[13] y = ratio of enrollment to instructional staff for resident courses.
[14] Not applicable. The equation was determined by passing a straight line through an arbitrarily chosen enrollment-staff ratio for 1981 and the 1968 enrollment-staff ratio.
[15] Constant = percent instructor or above was of the entire instructional staff in 1968.
[16] Constant = percent full-time instructor or above was of total instructor or above in 1968.
[17] Constant = percent junior instructional staff was of the entire instructional staff in 1968.
[18] Constant = percent full-time junior instructional staff was of total junior instructional staff in 1967.
[19] Constant = percent full-time equivalent of part-time instructor or above was of part-time instructor or above in 1968 in all institutions.
[20] Constant = percent full-time-equivalent junior instructional staff was of part-time junior instructional staff in 1968 in all institutions.
[21] Increase in total full-time equivalents employed over each previous year.
[22] Constant = percent of total full-time equivalents employed in previous year.

NOTE.—Sources of data and assumptions on which projections were based are given in text table footnotes.

Table A–4.—Methodology (Chapter V)

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (t = years; 1961–62 = 1)	Index of determination	Standard error	Adjusted equation	
Expenditures for education by elementary and secondary day schools	35, 36						
Current expenditures:							
Public							[1]
Nonpublic							[2]
Capital Outlay:							
Public							[3]
Nonpublic							[4]
Interest:							
Public							[5]
Nonpublic							[6]
Expenditures for education by institutions of higher education	35, 36						
Current expenditures:							
Public							[7]
Nonpublic							[7]
Capital outlay:							
Public							[8]
Nonpublic							[8]
Current expenditures of public school systems	37						
Average daily attendance		[9] 92.5 92.6					
Current expenditure allocated to pupil costs							
Per pupil in average daily attendance:							
Total			$y' = \$509 + \$38(t)$ [10]	0.98	16.72	$y' = \$528 + \$37(t)$	[11]
Current expenditures for all programs		[12] 1.04					

See footnotes at end of table.

Table A–4.—Methodology (Chapter V)—Continued

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (t = years; 1961–62 = 1)	Index of determination	Standard error	Adjusted equation	
Expenditures for salaries of instructional staff in public elementary and secondary day schools	38						
Average annual salary:[13]	.....	.....	y′ = $7,660 + $227(t)	0.97	$140	y′ = $7,545 + $232(t)	
Total salary	.....	.....	.....	.....	.....	.....	([14])
Construction of public elementary and secondary school classrooms and capital outlay	39						
Number of rooms completed	.....	[15] 60,000					
Capital outlay (school year):							
Total	.....	.....	.....	.....	.....	.....	([16])
Expenditures for interest by public elementary and secondary schools	40		y′ = $717 + $69(t) [17]	.94	$62	y′ = $982 + $56(t)	
Expenditures from current funds and total current fund expenditures by institutions of higher education	40, 41						
Expenditures for educational and general purposes:							
Student education (per student):							
Public	.....	.....	y′ = $1,490.81 + $63.37(t) [18]	.93	$52.51	y′ = $1,494.10 + $63.21(t)	
Nonpublic	.....	.....	y′ = $1,661.60 + $109.38(t) [19]	.98	$50.82	y′ = $1,710.56 + $107.05(t)	
Organized research (000's dollars) excluding fed. funded R.D. centers:							
Public	.....	.....	y′ = $645,943 + $90,231(t) [20]	.97	$49,828	y′ = $517,755 + $96,335(t)	
Nonpublic	.....	.....	y′ = $779,172 + $35,809(t) [21]	.29			
Related activities (percent of student ed.) including major public service except fed. funded R.D. centers:							
Public	.....	[22] 10					
Nonpublic	.....	.....	y′ = 8.138 + 0.267(t) [23]	.53	0.783	y′ = 10.151 + 0.171	

Table A–4.—Methodology (Chapter V)—Continued

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (t = years; 1961–62 = 1)	Index of determination	Standard error	Adjusted equation	
Related activities (percent) excluding major public service items beginning 1968–69:							
Public		[24] 46.0249					
Nonpublic		[25] 48.5810					
Expenditures for auxiliary enterprises (percent of student ed.):							
Public			$y' = 30.859 - 1.132(t)$ [26]	0.69	2.321	$y' = 27.398 - 0.968(t)$	
Nonpublic			$y' = 35.204 - 0.694(t)$ [27]	.34	2.991	$y' = 31.039 - 0.495(t)$	
Expenditures for student aid (percent of student ed.)							
Public			$y' = 3.004 + 0.263(t)$ [28]	.81	0.396	$y' = 2.816 + 0.272(t)$	
Nonpublic			$y' = 8.532 + 0.395(t)$ [29]	.97	0.233	$y' = 8.817 + 0.381(t)$	
Expenditures for major public service federally funded R.D. centers: 000's $:							
Public			$y' = \$295,880 + \$6,665$ [30]	.68	$14,171	$y' = \$283,849 + \$7,238$	
Nonpublic			$y' = \$427,706 + \$7,944$ [31]	.52	$23,495	$y' = \$387,291 + \$9,869$	
Hospitals and .other. major public servi beginning 1968–69:							
Public		[32] 53.9751					
Nonpublic		[33] 51.4190					
Capital outlay from current funds only (percent of total capital outlay):							
Public		[34] 15.0					
Nonpublic		[34] 15.0					
Capital outlay of institutions of higher ed.:							
Public:							
Increased capacity		[35] $9,258					
Major replacement and rehabilitation		[36] $882					
Nonpublic:							
Increased capacity		[35] $34,122					
Major replacement and rehabilitation		[36] $4,739					

[1] See method detailed for table 37 in footnotes 9 to 12 of this table (A–4).
[2] Ratio of nonpublic school teachers to public school teachers times public school current expenditures.
[3] See method detailed for table 39 in footnotes 15 and 16 of this table (A–4).
[4] Ratio of nonpublic school teachers to public school teachers times public school capital outlay.
[5] See method detailed for table 40 in footnote 17 of this table (A–4).
[6] Ratio of nonpublic school teachers to public school teachers times public school interest.
[7] See method detailed for table 41 in footnotes 18 to 34 of this table (A–4).
[8] See method detailed for table 43 in footnotes 35 and 36 of this table (A–4).
[9] Constant percent assumes that the percent that average daily attendance in public schools was of K–12 enrollment in public schools in 1970–71 (92.5) will continue through 1975–76 and will change to 92.6 for 1976–77 through 1981–82.
[10] y = current expenditure allocated to pupil costs per pupil in average daily attendance.
[11] Average daily attendance times cost per pupil for each year.
[12] Percent that expenditures for all programs were of expenditures allocated to pupil costs in recent years. Constant percent times total current expenditures allocated to pupil costs = current expenditures for all programs. Percent that expenditures for all programs were of expenditures allocated to pupil costs in recent years. Constant percent times total current expenditures allc ated to pupil costs = current expenditures for all programs.
[13] y = average annual salary of instructional staff in public elementary and secondary schools.
[14] Average annual salary times number of instructional staff in public elementary and secondary schools in each year.
[15] Estimated number of rooms to be completed held constant at 60,000: 1972–73 through 1981–82.
[16] Estimated number of rooms completed (table 39) times estimated capital outlay per room.
[17] y = annual expenditures for interest in public elementary and secondary schools.
[18] y = expenditures for student education per full-time-equivalent student in publicly controlled institutions of higher education.
[19] y = expenditures for student education per full-time-equivalent student in nonpublicly controlled institutions of higher education.
[20] y = expenditures for organized research in publicly controlled institutions of higher education, excluding federally funded R.&D. centers.
[21] y = expenditures for organized research in nonpublicly controlled institutions of higher education, excluding federally funded R.&D. centers.
[22] Constant percent assumes that expenditures for related activities in publicly controlled institutions will continue at 10 percent of expenditures for student education from 1971-72 through 1981–82.
[23] y = expenditures for related activities as a percent of expenditures for student education in nonpublicly controlled institutions of higher education.
[24] Constant percent = percent remaining in educational and general related activities of publicly controlled institutions of higher education beginning in 1968–69 after transfer of hospitals and "other" public service to separate items outside educational and general and they are entitled major public service current expenditures.
[25] Constant percent = percent remaining in educational and general related activities of nonpublicly controlled institutions of higher education beginning in 1968–69 after transfer of hospitals and "other" public service to separate items outside educational and general and they are entitled major public service current expenditures.
[26] y = expenditures for auxiliary enterprises as a percent of expenditures for student education in publicly controlled institutions of higher education.
[27] y = expenditures for auxiliary enterprises as a percent of expenditures for student education in nonpublicly controlled institutions of higher education.
[28] y = expenditures for student aid as a percent of expenditures for student education in publicly controlled institutions of higher education.
[29] y = expenditures for student aid as a percent of expenditures for student education in nonpublicly controlled institutions of higher education.
[30] y = expenditures for federally funded research and development centers by publicly controlled institutions of higher education.
[31] y = expenditures for federally funded research and development centers by nonpublicly controlled institutions of higher education.
[32] Constant percent = percentage removed from related activities under educational and general expenditures and designated as for hospitals and "other" items under major public service expenditures of publicly controlled institutions of higher education beginning in 1968–69.
[33] Constant percent = percentage removed from related activities under educational and general expenditures and designated as for hospitals and "other" items under major public service expenditures of nonpublicly controlled institutions of higher education beginning in 1968–69.
[34] Constant percent = estimated average capital outlay from current funds as percent of capital outlay from all sources.

[35] Constant 1971–72 dollars = 1969–70 capital outlay for increased capacity per adjusted additional full-time-equivalent student for 1969–70. Number of additional students each year adjusted by application of a 5-year moving average. Decreasing numbers of students given 50 percent weight. Minus numbers of additional students given zero weight.

[36] Constant 1971–72 dollars = 1969–70 capital outlay for major replacement and rehabilitation per adjusted additional full-time-equivalent student for 1969–70. Number of additional students each year adjusted by application of a 5-year moving average. Decreasing numbers of students given 50 percent weight. Minus numbers of additional students given zero weight.

Table A–5.—Methodology (Chapter VI)

Item	Text table number	Projection method				
		Constant	Trend			
			Least squares equation (y = dollars; t = years; 1960–61 = 1)	Index of determination	Standard error	Adjusted equation
Estimated average charges per full-time undergraduate resident degree-credit student in institutions of higher education (dollars)	44, 45	.....				
Tuition and required fees: [1]						
Public	.....	.....	$y' = \$290.53 + \$7.12(t)$	0.898	6.992	$y' = \$278.46 + \$7.69(t)$
Universities	.....	.....	$y' = \$342.99 + \$13.29(t)$	.842	16.807	$y' = \$319.82 + xu\$14.40(t)$
Other 4-year institutions	.....	.....	$y' = \$243.95 + \$11.47(t)$	.908	10.645	$y' = \$225.03 + \$12.37(t)$
2-year institutions	.....	.....	$y' = \$103.42 + \$9.85(t)$	.844	12.350	$y' = \$125.64 + \$8.79(t)$
Nonpublic	.....	.....	$y' = \$1,189.01 + \$54.21(t)$	.975	25.226	$y' = \$1,145.95 + \$56.26(t)$
Universities	.....	.....	$y' = \$1,423.78 + \$62.47(t)$	.969	32.687	$y' = \$1,369.59 + \$65.05(t)$
Other 4-year institutions	.....	.....	$y' = \$1,079.65 + \$59.59(t)$	.983	22.838	$y' = \$1,053.23 + \$60.85(t)$
2-year institutions	.....	.....	$y' = \$697.58 + \$54.15(t)$	.977	24.053	$y' = \$652.74 + \$56.28(t)$
Board: [2]						
Public	.....	.....	$y' = \$588.39 - \$3.26(t)$	.803	4.716	$y' = \$584.72 - \$3.09(t)$
Universities	.....	.....	$y' = \$614.48 - \$1.91(t)$	.123	14.888	$y' = \$594.79 - \$0.97(t)$
Other 4-year institutions	.....	.....	$y' = \$551.12 - \$3.53(t)$	.450	11.385	$y' = \$570.69 - \$4.46(t)$
2-year institutions	.....	.....	$y' = \$480.30 + \$0.88(t)$	.042	12.333	$y' = \$503.95 - \$0.24(t)$
Nonpublic	.....	.....	$y' = \$654.66 - \$4.21(t)$	.816	5.818	$y' = \$646.56 - \$3.82(t)$
Universities	.....	.....	$y' = \$692.17 - \$3.00(t)$	.562	7.727	$y' = \$678.97 - \$2.37(t)$
Other 4-year institutions	.....	.....	$y' = \$641.96 - \$4.82(t)$	.823	6.524	$y' = \$636.51 - \$4.56(t)$
2-year institutions	.....	.....	$y' = \$571.80 + \$5.38(t)$	.553	14.110	$y' = \$563.95 + \$5.76(t)$

See footnotes at end of table.

Table A–5.—Methodology (Chapter VI)—Continued

Item	Text table number	Projection method				
		Constant	Trend			
			Least squares equation (y = dollars; t = years, 1960–61 = 1)	Index of determination	Standard error	Adjusted equation
Room [3]						
Public			$y^1 = \$308.37 + \$10.32(t)$	0.966	5.652	$y^1 = \$305.21 + \$10.47(t)$
Universities			$y^1 = \$334.88 + \$10.53(t)$	.974	5.012	$y^1 = \$326.62 + \$10.92(t)$
Other 4-year institutions			$y^1 = \$265.16 + \$12.79(t)$	.977	5.699	$y^1 = \$264.33 + \$12.83(t)$
2-year institutions			$y^1 = \$183.67 + \$15.50(t)$	.931	12.256	$y^1 = \$205.21 + \$14.47(t)$
Nonpublic			$y^1 = \$388.06 + \$11.74(t)$	.854	14.156	$y^1 = \$362.31 + \$12.96(t)$
Universities			$y^1 = \$454.37 + \$13.32(t)$	.702	25.297	$y^1 = \$410.82 + \$15.40(t)$
Other 4-year institutions			$y^1 = \$354.46 + \$12.18(t)$	.922	10.293	$y^1 = \$336.90 + \$13.01(t)$
2-year institutions			$y^1 = \$287.80 + \$21.38(t)$	.924	17.821	$y^1 = \$275.10 + \$21.99(t)$

[1] y = average charge for tuition and required fees per full-time degree-credit student, calculated separately for each category by type and control of institution.

[2] y = average charge for board per full-time degree-credit student, calculated separately for each category by type and control of institution with t = 9 held constant to 1981–82 with the exception of nonpublic 2-year institutions.

[3] y = average charge for room per full-time degree-credit student, calculated separately for each category by type and control of institution.

Estimation Methods

General Statement

The basic data for projecting the educational components listed below were wholly or partially estimated for the years indicated. (A few items which were estimated and explained in the tables are not shown here.)

Unless otherwise specified, all educational components were estimated separately by type and control of institution and by sex and attendance status of student:

1. Degrees, bachelor's and master's—total, library science, social work—1958–59 to 1964–65 (tables 21–24).
2. Enrollment, first-time (tables 14–16)
   a. Degree-credit, 1966 and 1967
   b. Attendance status, 1959 to 1967
3. Enrollment, total (tables 6–11, 17–19)
   a. Graduate (resident), 1959 to 1963
   b. Graduate (resident), 1964 to 1966
   c. Undergraduate, 1959 to 1966
   d. Degree-credit, 1966
   e. Non-degree-credit, 1966
   f. Degree-credit, 1967
   g. Non-degree-credit, 1967
   n. Graduate (resident), 1967
   i. Undergraduate, 1967
   j. Graduate (resident), 1968
   k. Undergraduate, 1968
   m. Non-degree-credit attendance status, 1960 to 1967
4. Public elementary teachers and public secondary teachers, separately, 1971.
5. Instructional staff in institutions of higher education (tables 32–34)
   a. Instructional staff persons, 1959, 1961, and 1963
   b. Full-time junior instructional staff, 1960–65
   c. Full-time equivalent of part-time junior instructional staff, 1960–65
   d. Full-time junior instructional staff, 1968
6. Population (composite), 1961 to 1982 (table B–2).

1. Degrees, bachelor's and master's—total library science, social work—1958–59 to 1964–65 (tables 21–24)

From 1958–59 to 1964–65, all master's degrees that were considered first-professional were reported as first-professional degrees. These were reported with bachelor's degrees in 1958–59 and 1959–60; the same degrees were reported separately as first-professional and later added to bachelor's degrees from 1960–61 to 1964–65. Most library science and social work master's degrees were in this category.

Beginning in 1965–66, all master's degrees whether or not they were considered first-professional were reported with master's degrees. In 1969, in order to obtain comparable series in these two fields as well as for total master's degrees and total bachelor's and first-professional degrees, degrees reported as first-professional degrees in library science and in social work between 1960–61 and 1964–65 were subtracted from bachelor's and first-professional degrees and added to master's degrees.

For the years 1958–59 and 1959–60, the percentages of total bachelor's and first-professional degrees in library science and in social work that were first-professional in 1960–61 were applied to total bachelor's and first-professional degrees in the corresponding fields in 1958–59 and 1959–60 to estimate the number of master's degrees. These master's degrees were then subtracted from bachelor's and first-professional degrees and added to master's degrees.

2. Enrollment, first-time (tables 14–16)

2a. Degree-credit, unreported in 1966 and 1967

To estimate resident and extension first-time opening fall enrollment by degree-credit status in both 1966 and 1967, percentages of resident and extension total enrollment by degree-credit status calculated from the unpublished 1966 comprehensive survey of enrollment (not available by sex) were applied to resident and extension first-time enrollment (combined degree-credit, non-degree-credit, men, women).

To estimate resident and extension degree-credit, first-time opening fall enrollment by sex in both 1966 and 1967, percentages of resident and extension degree-credit total enrollment by sex calculated from the 1965 opening fall enrollment survey were applied to estimated degree-credit first-time enrollment on men and women.

2b. Attendance status, unreported 1960 to 1967

To estimate degree-credit first-time enrollment by attendance status in 1960 to 1967, percentages of degree-credit first-time enrollment by attendance status calculated from the 1959 and 1961 comprehensive surveys of enrollment and the 1968 opening fall enrollment survey, together with interpolations of these percentages for the years 1960 and 1962 to 1967, were applied to 1960 to 1967 degree-credit first-time enrollment (combined full-time and part-time).

3. Enrollment, total (tables 6–11, 17–19)

3a. Resident graduate, unreported 1960 to 1963

To estimated resident graduate opening fall enrollment from 1960 to 1963 in each control of institution and sex category, linear equations were fitted to the percentages that resident graduate enrollment were of resident and extension degree-credit enrollment calculated from the comprehensive enrollment surveys in 1957, 1959, 1961, and 1963. These estimated percentages were applied to resident and extension degree-credit opening fall enrollment in 1960 to 1963.

To estimate resident graduate opening fall enrollment by attendance status from 1960 to 1963 in each control of institution and sex category, use was made of diverse attendance status data from several sources: comprehensive enrollment survey, resident graduate enrollment, 1959 and 1961, undergraduate and first-professional 1957, 1959, 1961, undergraduate 1963; enrollment for advanced degrees (not by sex) 1960 to 1963; opening fall enrollment survey total degree-credit resident and extension 1962 and 1963. By balancing all of this information and by using interpolations and extrapolations, full-time resident graduate enrollment as a percentage of total resident graduate enrollment was estimated for 1960 to 1963 by control and sex categories. These percentages were applied to estimated resident graduate enrollment, 1960 to 1963, in each control of institution and sex of student category.

3b. Resident graduate, unreported 1964 to 1966

To estimate resident graduate opening fall enrollment from 1964 to 1966 in each control of institution and sex category, interpolations were made between the percentages that resident graduate enrollment was of resident and extension degree-credit enrollment in 4-year institutions in 1963 and 1967. These interpolated percentages were applied to resident and extension degree-credit enrollment in 1964, 1965, and 1966.

To estimate resident graduate opening fall enrollment by attendance status from 1964 to 1966 in each control of institution and sex category, interpolations were made between the percentages that full-time resident graduate enrollment was of total resident graduate enrollment in 1963 and 1967. These percentages were applied to estimated resident graduate enrollment for 1964, 1965, and 1966, in each control of institution and sex of student category.

3c. Undergraduate, unreported 1960 to 1966

To estimate resident and extension undergraduate and first-professional opening fall enrollment in 4-year institutions, 1960 to 1966, the estimate of resident graduate enrollment was subtracted from degree-credit resident and extension enrollment in each year in each control of institution and sex and attendance status of student category. (In 2-year institutions undergraduate degree-credit enrollment is the same as total degree-credit enrollment.)

3d. Degree-credit, unreported in 1966

To estimate resident and extension total opening fall enrollment by degree-credit status and attendance status in 1966, percentages of resident and extension total enrollment by degree-credit status in each attendance status category calculated from the unpublished 1966 comprehensive survey of enrollment (not available by sex) were applied to reported 1966 total enrollment by attendance status categories.

To estimate full-time degree-credit and part-time degree-credit opening fall enrollment by sex in 1966, percentages of full-time degree-credit enrollment by sex and of part-time degree-credit enrollment by sex calculated from the 1965 opening fall enrollment survey (non-degree-credit enrollment was not reported by attendance status in 1965) were applied to estimated degree-credit attendance status categories.

3e. Non-degree-credit, unreported in 1966

The estimation of non-degree-credit enrollment by attendance status in 1966 was a byproduct of the estimation of degree-credit enrollment by attendance status in 1966.

To estimate non-degree-credit total opening fall enrollment by attendance status and sex in 1966, estimated degree-credit categories by attendance and sex were subtracted from reported total degree-credit and non-degree-credit categories by attendance status and sex. These differences were adjusted to agree with the estimated nondegree categories by attendance status which were a byproduct of the estimation of degree-credit enrollment by attendance status.

3f. Degree-credit, unreported 1967

To estimate resident and extension total opening fall enrollment by degree-credit status in 1967:

(1) Percentages of resident and extension total enrollment by degree-credit status in each sex category (not available by attendance status), calculated from the unpublished 1967 comprehensive survey of enrollment were applied to reported 1967 total enrollment by sex categories;

(2) Similar percentages by degree-credit status in each attendance status category (not available by sex), calculated from the 1967 comprehensive enrollment survey, were applied to reported 1967 resident and extension total enrollment by attendance status categories;

(3) Probability estimates were applied to the two sets of estimates (one by sex, one by attendance status) to obtain estimates of resident and extension total enrollment by degree-credit status in each sex and attendance status category.

3g. Non-degree-credit, unreported 1967

The estimation of resident and extension non-degree-credit enrollment by sex and attendance status in 1967 was a byproduct of the estimation of resident and extension degree-credit enrollment by attendance status and sex in 1967.

3h. Resident graduate, unreported in 1967

To estimate resident graduate opening fall enrollment by sex and attendance status in 1967:

(1) Percentages of resident postbaccalaureate enrollment by resident graduate and first-professional enrollment status in each sex category, calculated from the unpublished 1967 comprehensive survey of enrollment, were applied to reported 1967 resident postbaccalaureate enrollment in corresponding sex categories;

(2) Similar percentages for attendance status categories, calculated from the 1967 comprehensive survey of enrollment (this survey reported categories by sex and attendance status independently), were applied to reported 1967 resident postbaccalaureate enrollment in corresponding attendance status categories;

(3) Probability estimates were applied to the two sets of estimates (one by sex, one by attendance status) to obtain estimates of resident graduate and resident first-professional enrollment by sex and attendance status.

3i. Undergraduate and first-professional, unreported in 1967

To estimate resident and extension degree-credit undergraduate and first-professional opening fall enrollment in 1967 (a revision because the 1967 comprehensive survey of enrollment was not available until 1970), estimated 1967 resident graduate enrollment was subtracted from the total of estimated 1967 resident and extension degree-credit enrollment in 4-year institutions in each sex and attendance status category.

3j. Resident graduate, unreported in 1968

To estimate resident graduate opening fall enrollment for 1968 in each control of institution and sex category, an interpolation was made between the percentages that resident graduate enrollment was of postbaccalaureate enrollment in 1967 and 1969. This interpolated percentage was applied to postbaccalaureate enrollment in 1968.

To estimate resident graduate opening fall enrollment by attendance status in each control of institution and sex category an interpolation was made between the percentages that full-time resident graduate enrollment was of total resident graduate enrollment in 1967 and 1969. The interpolated percentage was applied to estimated resident graduate enrollment.

3k. Undergraduate and first-professional, unreported in 1968

To estimate resident and extension degree-credit undergraduate and first-professional opening fall enrollment in 1968 (a revision because the 1967 comprehensive survey of enrollment was not available until 1970), estimated 1968 resident graduate enrollment was subtracted from the total of reported 1968 resident and extension degree-credit enrollment in 4-year institutions in each sex and attendance status category.

3m. Enrollment, total non-degree-credit by attendance status, 1960–67 (tables 9–11)

Non-degree-credit enrollment by attendance status was not reported in the opening fall enrollment surveys prior to 1968. It was never reported in the comprehensive surveys of enrollment in 1959 and 1961. In 1964, the sample survey of full-time-equivalent enrollment and credit hours reported that 40 percent of total non-degree-credit enrollment was full time (not available by type and control of institution).

To estimate the full-time percentages from 1960 to 1964, the full-time percentages by type and control of institution from the 1968 opening fall enrollment survey were prorated down to equal about 40 percent for the total. For the years 1965 to 1967, the percentages between 1964 and the actual 1968 percentages, for each type and control of institution, were interpolated.

4. Public elementary and secondary teachers, separately, unreported 1971 (tables 27, 28)

For teachers in public elementary schools, the projected pupil-teacher ratio for 1971 from the 1971 edition of *Projections of Educational Statistics* was applied to the 1971 reported enrollment in public elementary schools to obtain a temporary estimate. The same procedure was followed for teachers in public secondary schools. The two temporary estimates were then prorated so that their sum equals the reported number of teachers in both elementary and secondary schools.

5. Instructional staff in institutions of higher education (tables 32–34)

5a. Instructional staff persons, unreported in 1959, 1961, and 1963

For each category of type and control of institution, the average ratio of total professional positions to total number of professional persons was calculated from *Faculty and Other Professional Staff in Institutions of Higher Education*, biennially, first-term 1959–60 to 1963–64. This ratio was applied to the number of reported instructional positions for both professional ranks to estimate the number of instructional persons.

5b. Full-time junior instructional staff, unreported in 1960–65

The percentage in 1966 that full-time junior instructional staff was of total junior instructional staff was assumed to have been the same in 1960 through 1965.

5c. Full-time equivalent of part-time junior instructional staff, unreported in 1960–65

The percentage in 1966 that full-time-equivalent of part-time junior instructional staff was of part-time junior instructional staff was assumed to have been the same in 1960 through 1965.

5d. Full-time junior instructional staff, unreported in 1968

The percentage in 1967 that full-time junior instructional staff was of total junior instructional staff was assumed to have remained constant.

6. Population, composite, 1961 to 1982 (table B–2)

Beginning with the 1969 edition of *Projections of Educational Statistics*, the 18-year-old population used previously for projecting degrees by level was replaced by a composite population. This population is not only more representative of the actual ages of the recipients but tends to smooth out any rough year-to-year changes in population.

For this purpose, the percentage distributions of ages at graduation from college found by Laure M. Sharp in the 1958 survey *Two Years After the College Degree* were taken as the base. These percentage distributions, kept separate for men and for women, were detruncated to avoid too many age classes and then restored to 100 percent by prorating, with the following result:

Percent of graduates

Age	*Men*	*Women*
21	10	21
22	43	61
23	15	8
24	15	7
25	9	2
26	8	1

To obtain the composite population for a given year, the above percentages were applied to the corresponding age-specific populations in that year and the products summed.

The timelags for each level were kept the same as in previous projections. These timelags were 2 years from the bachelor's degree to the master's degree, and 3 years from the master's degree to the doctorate.

A comparison of the fits obtained from equations based on the 18-year-old population and from equations based on the composite population showed that the latter produced a higher index of determination.

Classification of Degrees by Field of Study

[Individual fields listed in *Taxonomy of Instructional Programs in Higher Education*]

I. Social Sciences

- Social Sciences
  - Social sciences, general
  - Anthropology
  - Archaeology
  - Economics
  - History
  - Geography
  - Political sciences and government
  - Sociology
  - Criminology
  - International relations
  - Afro-American (black culture) studies
  - American Indian cultural studies
  - Mexican-American cultural studies
  - Urban studies
  - Demography
  - Area studies
  - Other
- Psychology
  - Psychology, general
  - Experimental psychology (animal and human)
  - Clinical psychology
  - Psychology for counseling
  - Social psychology
  - Psychometrics
  - Statistics in psychology
  - Industrial psychology
  - Developmental psychology
  - Physiological psychology
  - Other, specify
- Public Affairs and Services
  - Community services, general
  - Public administration
  - Parks and recreation management
  - Social work and helping services (other than clinical social work)
  - Law enforcement and corrections (baccalaureate and higher programs)
  - International public service (other than diplomatic service)
  - Other, specify
- Library Science
  - Library science, general
  - Other

II. Humanities

- Architecture and Environmental Design
  - Environmental design, general
  - Architecture
  - Interior design
  - Landscape architecture
  - Urban architecture
  - City, community, and regional planning
  - Other, specify
- Fine and Applied Arts
  - Fine arts, general
  - Art (painting, drawing, sculpture)
  - Art history and appreciation
  - Music (performing, composition, theory)
  - Music (liberal arts program)
  - Music history and appreciation (musicology)
  - Dramatic arts
  - Dance
  - Applied design (ceramics, weaving, textile design, fashion design, jewelry, metalsmithing, interior decoration, commercial art)
  - Cinematography
  - Photography
  - Other, specify
- Foreign Languages
  - Foreign languages, general (includes concentration on more than one foreign language without major emphasis on one language)
  - French
  - German
  - Italian
  - Spanish
  - Russian
  - Chinese
  - Japanese
  - Latin
  - Greek, classical
  - Hebrew
  - Arabic
  - Indian (Asiatic)
  - Scandinavian languages
  - Slavic languages (other than Russian)
  - African languages (non-Semitic)
  - Other, specify
- Communications
  - Communications, general
  - Journalism (printed media)
  - Radio/television
  - Advertising
  - Communication media (use of videotape, films, etc., oriented specifically toward radio/television)
  - Other, specify
- Letters
  - English, general

- Literature, English
- Comparative literature
- Classics
- Linguistics (includes phonetics, semantics, and philology)
- Speech, debate, and forensic science (rhetoric and public address)
- Creative writing
- Teaching of English as a foreign language
- Philosophy
- Religious studies (excludes theological professions)
- Other, specify

III. Natural Sciences and Miscellaneous Fields

- Mathematics and Statistics
  - Mathematics, general
  - Statistics, mathematical and theoretical
  - Applied mathematics
  - Other, specify
- Computer and Information Sciences
  - Computer and information sciences, general
  - Information sciences and systems
  - Data processing
  - Computer programing
  - Systems analysis
  - Other, specify
- Engineering
  - Engineering, general
  - Aerospace, aeronautical and astronautical engineering
  - Agricultural engineering
  - Architectural engineering
  - Bioengineering and biomedical engineering
  - Chemical engineering (includes petroleum refining)
  - Petroleum engineering (excludes petroleum refining)
  - Civil, construction, and transportation engineering
  - Electrical, electronics, and communications engineering
  - Mechanical engineering
  - Geological engineering
  - Geophysical engineering
  - Industrial and management engineering
  - Metallurgical engineering
  - Materials engineering
  - Ceramic engineering
  - Textile engineering
  - Mining and mineral engineering
  - Engineering physics
  - Nuclear engineering
  - Engineering mechanics
  - Environmental and sanitary engineering
  - Naval architecture and marine engineering
  - Ocean engineering
  - Engineering technologies (baccalaureate and higher programs)
  - Other, specify
- Physical Sciences
  - Physical sciences, general
  - Physics, general (excludes biophysics)
  - Molecular physics
  - Nuclear physics
  - Chemistry, general (excludes biochemistry)
  - Inorganic chemistry
  - Organic chemistry
  - Physical chemistry
  - Analytical chemistry
  - Pharmaceutical chemistry
  - Astronomy
  - Astrophysics
  - Atmospheric sciences and meteorology
  - Geology
  - Geochemistry
  - Geophysics and seismology
  - Earth sciences, general
  - Paleontology
  - Oceanography
  - Metallurgy
  - Other, specify
- Biological Sciences
  - Biology, general
  - Botany, general
  - Bacteriology
  - Plant pathology
  - Plant pharmacology
  - Plant physiology
  - Zoology, general
  - Pathology, human and animal
  - Premedical, predental, and preveterinary science
  - Pharmacology, human and animal
  - Physiology, human and animal
  - Microbiology
  - Anatomy
  - Histology
  - Biochemistry
  - Biophysics
  - Molecular biology
  - Cell biology (cytology, cell physiology)
  - Marine biology
  - Biometrics and biostatistics
  - Ecology
  - Entomology
  - Genetics
  - Radiobiology
  - Nutrition, scientific (excludes nutrition in home economics and dietetics)
  - Neurosciences
  - Toxicology
  - Embryology
  - Other, specify
- Agriculture and Natural Resources
  - Agriculture, general
  - Agronomy (field crops, and crop management)
  - Soils science (management and conservation)
  - Animal science (husbandry)
  - Dairy science (husbandry)
  - Poultry science
  - Fish, game, and wildlife management
  - Horticulture (fruit and vegetable production)

- Ornamental horticulture (floriculture, nursery science)
- Agricultural and farm management
- Agricultural economics
- Agricultural business
- Food science and technology
- Forestry
- Natural resources management
- Agriculture and forestry technologies (baccalaureate and higher programs)
- Range management
- Other, specify

Health Professions
- Health professions, general
- Hospital and health care administration
- Nursing (baccalaureate and higher programs)
- Dentistry, D.D.S. or D.M.D. degree
- Dental specialties (work beyond first-professional degree, D.D.S. or D.M.D.)
- Medicine, M.D. degree
- Medical specialties (work beyond first-professional degree, M.D.)
- Occupational therapy
- Optometry
- Osteopathic medicine, D.O. degree
- Pharmacy
- Physical therapy
- Dental hygiene (baccalaureate and higher programs)
- Public health
- Medical record librarianship
- Podiatry (Pod.D. or D.P.) or podiatric medicine (D.P.M.)
- Biomedical communication
- Veterinary medicine (D.V.M. degree)
- Veterinary medicine specialties (work beyond first-professional degree, D.V.M.)
- Speech pathology and audiology
- Chiropractic
- Clinical social work (medical and psychiatric and specialized rehabilitation services)
- Medical laboratory technologies (baccalaureate and higher programs)
- Dental technologies (baccalaureate and higher programs)
- Radiologic technologies (baccalaureate and higher programs)
- Other, specify

Accounting

Other Business and Management
- Business and commerce, general
- Business statistics
- Banking and finance
- Investments and securities
- Business management and administration
- Operations research
- Hotel and restaurant management
- Marketing and purchasing
- Transportation and public utilities
- Real estate
- Insurance
- International business
- Secretarial studies (baccalaureate and higher programs)
- Personnel management
- Labor and industrial relations
- Business economics
- Other, specify

Education
- Education, general
- Elementary education, general
- Secondary education, general
- Junior high school education
- Higher education, general
- Junior and community college education
- Adult and continuing education
- Special education, general
- Administration of special education
- Education of the mentally retarded
- Education of the gifted
- Education of the deaf
- Education of the culturally disadvantaged
- Education of the visually handicapped
- Speech correction
- Education of the emotionally disturbed
- Remedial education
- Special learning disabilities
- Education of the physically handicapped
- Education of the multiply handicapped
- Social foundations (history and philosophy of education)
- Educational psychology (includes learning theory)
- Preelementary education (kindergarten)
- Educational statistics and research
- Educational testing, evaluation and measurement
- Student personnel (counseling and guidance)
- Educational administration
- Educational supervision
- Curriculum and instruction
- Reading education (methodology and theory)
- Art education (methodology and theory)
- Music education (methodology and theory)
- Mathematics education (methodology and theory)
- Science education (methodology and theory)
- Physical education
- Driver and safety education
- Health education (includes family life education)
- Business, commerce, and distributive education
- Industrial arts, vocational, and technical education
- Other, specify
  - Agriculture education
  - Home economics education

- Other
  - Home economics
    - Home economics, general
    - Home decoration and home equipment
    - Clothing and textiles
    - Consumer economics and home management
    - Family relations and child development
    - Foods and nutrition (includes dietetics)
    - Institutional management and cafeteria management
    - Other, specify
  - Law
    - Law, general
    - Other, specify
- Military sciences
  - Military science (Army)
  - Naval science (Navy, Marines)
  - Aerospace science (Air Force)
  - Other, specify
- Theology
  - Theological professions, general
  - Religious music
  - Biblical languages
  - Religious education
  - Other, specify
- Interdisciplinary studies
  - General liberal arts and sciences
  - Biological and physical sciences
  - Humanities and social sciences
  - Engineering and other disciplines
  - Other, specify

Changes in Degree-Level Definitions

Prior to 1960–61	1960–61 through 1964–65	1965–66
BACHELOR'S DEGREES		
Number of years of work not specified. First-professional degrees included.	Number of years of work specified as less than 5. First-professional degrees excluded.	Number of years of work specified as less than 6. First-professional degrees excluded.
FIRST-PROFESSIONAL DEGREES		
Included with bachelor's degrees.	5 or more years of work required. Includes first-professional degrees such as degrees in dentistry, law, medicine, and theology. Includes master's degrees such as degrees in business administration, hospital administration, law, library science, social work, and theology.	6 or more years of work required. Includes first-professional degrees such as degrees in dentistry, law medicine, and theology. Excludes all master's degrees.
MASTER'S DEGREES		
	Includes all master's degrees except some considered first-professional. Includes second-professional degrees below level of doctorate.	Includes all master's degrees including those considered first-professional prior to 1965–66. Includes second-professional degrees below level of doctorate.
DOCTOR'S DEGREES		
Includes Ph.D. in any field and such degrees as doctor of education, doctor of juridical science, and doctor of public health (preceded by professional degree in medicine or sanitary engineering).	No change.	No change.

Glossary

Courses

Adult education courses
Group instruction in courses which are designed for, or attended principally by, persons who have terminated their formal education.

Degree-credit courses
Courses which carry credit toward a bachelor's or higher degree.

Individual lessons
Lessons in music, art, speech, etc.

Non-degree-credit courses
Courses extending not more than 3 years beyond high school and designed to prepare students for immediate employment in an occupation or cluster of occupations at the technical and/or semiprofessional level (engineering-related or non-engineering-related), or at the craftsman-clerical level (artisans, skilled workers, and clerical workers).

Short courses
Courses that carry no credit toward a degree because of less than prescribed length.

Degrees

Bachelor's or first-level degrees
Lowest degree conferred by college, university, or professional school, requiring 4 or more years of academic work. For changes in Office of Education classification, see appendix A, "Changes in Degree-Level Definitions."

Doctor's degrees (except first-professional)
Highest academic degree conferred by a university; includes Ph.D. in any field; includes doctor of education, doctor of juridical science, and doctor of public health (preceded by professional degree in medicine or sanitary engineering).

First-professional degrees
An academic degree which requires at least 2 academic years of previous college work for entrance and which requires a total of at least 6 academic years of college work for completion. Beginning in 1965–66, Office of Education classification includes the following degrees only: Law (LL.B. or J.D. only); dentistry (D.D.S. or D.M.D. only); medicine (M.D. only); veterinary medicine (D.V.M. only); chiropody or podiatry (D.S.C. or D.P.); optometry (O.D.); osteopathy (D.O.); and theology (B.D. only). For changes in Office of Education classification, see appendix A, "Changes in Degree-Level Definitions."

Master's or second-level degrees
An academic degree higher than a bachelor's but lower than a doctor's. All degrees classified as first-professional are excluded.

Expenditures, elementary and secondary

Current expenditures, regular elementary and secondary day schools
Includes current expenditures for administration, instruction, plant operation and maintenance, fixed charges (retirement, social security, insurance, etc.), and other school services (pupil transportation, food services, health services, attendance services, and miscellaneous school services).

Current expenditures, total
Includes current expenditures for regular elementary and secondary day school programs and current expenditures for other school programs including summer schools, adult education, community colleges, and community services.

Expenditures, total
Includes total current expenditures for all programs, capital outlay, and interest on school debt.

Expenditures, general

Capital outlay
An expenditure for land or existing buildings, improvement of grounds, construction of buildings, additions to buildings, and initial or additional equipment. Includes replacement and rehabilitation and installment or lease payments (excluding interest) which have a terminal date and result in the acquisition of property.

Constant dollars (1969–70)
Expenditure data which have been adjusted by means of price and cost indexes to equal the purchasing power of 1969–70 dollars. This eliminates inflationary factors and allows direct comparison between years.

Current dollars
Expenditure data which have not been adjusted to compensate for inflation. (Projection of unadjusted expenditure data has been limited to 2 years.)

Current expenditures
Any expenditure except for capital outlay and debt service. If accounts are kept on the accrual basis, current expense includes total charges incurred, whether paid or unpaid. If accounts are kept on the cash basis, it includes only actual disbursements.

Debt service
Includes payment for retirement of debt and for use of long-term loans (not repaid in the year in which made).

Interest
Any payment for use of money.

Expenditures, higher education

Current expenditures, total
The term used for total expenditure from current funds less expenditures from current funds which are used for capital outlay (about 16 percent of total capital outlay is expended from current funds).

Current fund expenditures, total
Includes expenditures for auxiliary enterprises, organized research, related activities, student aid, and student education. Approximately 16 percent of total capital outlay by institutions of higher education is estimated to have been expended directly from current funds.

Auxiliary enterprises.—Expenditures for services to students, faculty, or other staff for which a fee is charged that is directly related to, but not necessarily equal to, the cost of service. For example, dormitories, food service, and student stores.

Organized research.—Expenditures for all sponsored research and all separately budgeted research. Excludes expenditures for research carried on as part of the regular instructional services departmental research which is included with expenditures for student education.

Related activities.—Expenditures for activities which exist to provide instructional or laboratory experience for students and which incidentally create goods or services that may be sold on the campus or to the general public. Expenditures are incurred in addition to those necessary solely for the educational benefit of the students. Expenditures from current funds which could not be reported under "student education" or "organized research" are here included under "related activities."

Student aid.—Expenditures for assistance to students through scholarships, fellowships, and prizes. Recipients are not required to repay, either through services or monies.

Student education.—Expenditures for those components of educational and general expenditures which are most closely related to instruction. Includes instruction and research which are part of regular instructional services (departmental research), extension and public service, libraries, physical plant operation and maintenance, general administration, and other sponsored activities.

Expenditures, total

Includes expenditures for capital outlay, debt service including interest, and total current expenditures.

Student charges

Student charges include charges for tuition, required fees, room, and board. Required fees are those for matriculation, laboratory, library, health, etc. They do not include books. Student charges as reported in this circular are based on full-time, resident (in-State or in-district) students.

Schools

Elementary schools

Schools with teaching primarily organized by grades, composed of a span of grades not above grade eight.

Independent nursery and kindergarten schools

Schools that offer nursery and/or kindergarten instruction only.

Other schools

Other schools include residential schools for exceptional children (public and nonpublic), Federal schools for Indians, federally operated schools on Federal installations, and subcollegiate departments of public and private institutions of higher education.

Regular schools

Schools for normal children that satisfy the requirements of the State education laws and offer at least one grade beyond kindergarten.

Residential schools for exceptional children

Residential schools for the handicapped (outside the regular public and private school systems) include public and private residential schools for the deaf, blind, mentally deficient, epileptic, and delinquent. (Most handicapped children are in special classes within the regular public and private school system.)

Secondary schools

Schools with teaching organized by subject matter taught, composed of junior high and high schools.

Special schools

Special schools are schools not in the regular school system, such as trade schools or business colleges.

Students

Advanced-degree students
Students who have attained at least one standard degree and have been accepted as candidates for master's or doctor's degrees.

Extension students
Students who most commonly take instruction away from main campus; also students receiving on campus instruction offered by an extension division.

First-professional students
See first-professional degrees.

First-time students
Freshmen not previously enrolled in any institutions of higher education.

Full-time students
Students enrolled in courses with credits equal to at least 75 percent of the normal full-time semester course load.

Full-time-equivalent students
The estimated number of full-time students equal to a given number of part-time students. (For degree-credit students the percentage of part-time to full-time is estimated at 33 percent; for non-degree-credit students, 28 percent.)

Graduate students
Students who have attained at least one standard degree and are or might be candidates for a master's or doctor's degree (except first-professional).

Occupational students
See non-degree-credit courses.

Postbaccalaureate students
Students who have attained at least one standard degree and are or might be candidates for a first-professional, master's, or doctor's degree.

Resident students (enrollment)
Students who attend classes on a main campus or a branch campus. Students' living quarters (whether on or off campus) and their legal domicile (whether in-State or out-of-State) are irrelevant.

Resident students (student charges)
Students with legal domicile in-State or in-District.

Unclassified students
Students who are not candidates for a degree, diploma, certificate, or equivalent award, although taking courses in regular classes with other students.

Undergraduate students
Degree-credit or non-degree-credit students who have not received formal recognition as having completed the prescribed degree-credit or non-degree-credit requirements of an accredited institution of higher education.

APPENDIX B

Statistical Tables

Table B–1.—School-age population (U.S. Census projection Series C, D, and E), ages 5, 6, and 5–13 years: United States, 1961 to 1982[1]

[Ages as of October 1, populations in thousands]

Year (fall)	Age 5			Age 6			Age 5–13		
	C	D	E	C	D	E	C	D	E
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1961	.....	4,012	.....	.....	3,972	.....	.....	33,461	.....
1962	.....	4,100	.....	.....	4,020	.....	.....	34,111	.....
1963	.....	4,119	.....	.....	4,107	.....	.....	34,781	.....
1964	.....	4,132	.....	.....	4,125	.....	.....	35,446	.....
1965	.....	4,168	.....	.....	4,138	.....	.....	36,048	.....
1966	.....	4,248	.....	.....	4,174	.....	.....	36,631	.....
1967	.....	4,163	.....	.....	4,256	.....	.....	37,017	.....
1968	.....	4,095	.....	.....	4,171	.....	.....	37,243	.....
1969	.....	4,005	.....	.....	4,102	.....	.....	37,288	.....
1970	.....	3,680	.....	.....	3,870	.....	.....	36,443	.....
1971	.....	3,509	.....	.....	3,687	.....	.....	35,790	.....
	PROJECTED								
1972	.....	3,408	.....	.....	3,516	.....	.....	35,054	.....
1973	.....	3,385	.....	.....	3,415	.....	.....	34,303	.....
1974	.....	3,492	.....	.....	3,392	.....	.....	33,691	.....
1975	3,508	3,496	3,483	.....	3,499	.....	33,089	33,077	33,064
1976	3,798	3,735	3,668	3,515	3,503	3,490	32,858	32,783	32,703
1977	3,975	3,856	3,760	3,804	3,742	3,688	32,868	32,675	32,511
1978	4,157	3,981	3,796	3,981	3,862	3,738	33,163	32,791	32,402
1979	4,343	4,110	3,864	4,164	3,988	3,802	33,827	33,224	32,587
1980	4,528	4,238	3,933	4,349	4,116	3,870	34,844	33,950	33,009
1981	4,709	4,364	4,002	4,535	4,244	3,940	36,144	34,924	33,601
1982	4,880	4,485	4,080	4,715	4,370	4,008	37,637	36,003	34,286

[1] In projecting the number of children to be born, the Census Bureau uses the cohort-fertility method and several different assumptions as to average completed fertility of women in the childbearing ages (15–45 years). These different series of population projections correspond roughly to the following assumptions:

Series C—average completed fertility rate of 2,775 children per 1,000 women is somewhat higher than the most recent data on births indicate.

Series D—average completed fertility rate of 2,450 children per 1,000 women most closely approximates the rate indicated by the most recent data on births.

Series E—average completed fertility rate of 2,110 children per 1,000 women is lower than recent data would indicate. However, in addition to being a low projection, at this rate and without immigration, the population would exactly replace itself after enough time had elapsed for the age structure to stabilize.

For a detailed explanation of the methods used, see the following source, pp. 1–49: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Estimates: Projections of the Population of the United States, by Age, Sex, and Color to 1990, with Extension of Population by Age and Sex to 2,015," Series P–25, No. 381, December 18, 1967.

SOURCES: Office of Education estimates are based on Bureau of the Census population data by age as of July 1. Population data used are consistent with projection data in *Current Population Reports*, "Population Estimates and Projections: Projections of the Population of the United States, by Age and Sex: 1970 to 2020," Series P–25, No. 470, November 1971.

Table B–2.—High school- and college-age population: United States, 1961 to 1982[1]

[Ages as of October 1, populations in thousands]

Year (fall)	14–17	18		18–21		Composite populations[2]	
	Total	Men	Women	Men	Women	Men	Women
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	12,199	1,432	1,400	5,234	5,145	1,124	1,141
1962	12,951	1,405	1,371	5,480	5,377	1,153	1,174
1963	13,693	1,466	1,429	5,652	5,543	1,211	1,245
1964	14,215	1,698	1,650	5,817	5,702	1,293	1,348
1965	14,164	1,831	1,774	6,224	6,085	1,366	1,414
1966	14,373	1,790	1,734	6,621	6,444	1,387	1,392
1967	14,720	1,790	1,734	6,995	6,803	1,422	1,422
1968	15,146	1,818	1,760	7,252	7,049	1,514	1,559
1969	15,553	1,870	1,812	7,216	7,020	1,673	1,750
1970	15,992	1,943	1,883	7,399	7,217	1,690	1,734
1971	16,343	1,996	1,936	7,583	7,383	1,745	1,763
PROJECTED							
1972	16,583	2,038	1,973	7,794	7,580	1,792	1,789
1973	16,752	2,076	2,005	7,965	7,738	1,852	1,838
1974	16,812	2,126	2,052	8,148	7,908	1,879	1,871
1975	16,764	2,152	2,077	8,330	8,076	1,927	1,925
1976	16,645	2,143	2,072	8,457	8,189	1,972	1,966
1977	16,479	2,132	2,064	8,542	8,274	2,016	2,000
1978	16,236	2,127	2,057	8,570	8,306	2,060	2,041
1979	15,806	2,108	2,037	8,542	8,283	2,104	2,080
1980	15,289	2,073	2,001	8,484	8,228	2,122	2,083
1981	14,734	2,031	1,960	8,403	8,142	2,131	2,084
1982	14,259	1,958	1,892	8,283	8,019	2,131	2,076

[1] All ages are in completed years except age 18, which has been calculated to nearest birthday. No fertility assumptions are used in this table because the persons included are already born.

[2] The composite population (used for projecting degrees) was derived by (1) prorating to 100 percent the detruncated percentage distribution of the ages of recipients of bachelor's degrees which had been found by Laure M. Sharp in the 1958 survey *Two Years After the College Degree*; and (2) applying these percentages to corresponding age groups which were consistent with the other populations shown in this table. For further estimating details, see appendix A, "Estimation Methods," section 5.

SOURCE: Office of Education estimates are based on Bureau of the Census population data by age as of July 1. Population data used are consistent with projection data in U.S. Department of Commerce, Bureau of the Census *Current Population Reports*, "Population Estimates and Projections. Projections of the Population of the United States, by Age and Sex: 1970 to 2020," Series P–25, No. 470, November 1971.

Table B–3.—Enrollment in grades K–8 and 9–12 of regular day schools, with projections based on U.S. Census population projection Series C, by institutional control: United States, fall 1961 to 1981[1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K–12	K–8	9–12	K–12	K–8[3]	9–12[3]	K–12	K–8	9–12[4]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1961	43,164	32,695	10,469	37,464	28,095	9,369	5,700	4,600	[5] 1,100
1962	44,849	33,537	11,312	38,749	28,637	10,112	6,100	[5] 4,900	[5] 1,200
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	[5] 1,300
1964	47,716	35,025	12,691	41,416	30,025	11,391	6,300	5,000	[5] 1,300
1965	48,473	35,463	13,010	42,173	30,563	11,610	6,300	[5] 4,900	[5] 1,400
1966	49,239	35,945	13,294	43,039	31,145	11,894	6,200	4,800	1,400
1967	49,891	36,241	13,650	43,891	31,641	12,250	6,000	4,600	1,400
1968	50,744	36,626	14,118	44,944	32,226	12,718	5,800	[5] 4,400	[5] 1,400
1969	51,119	36,797	14,322	45,619	32,597	13,022	5,500	4,200	1,300
1970	51,309	36,677	14,632	45,909	32,577	13,332	5,400	[6] 4,100	[6] 1,300
1971	51,280	36,165	15,116	46,080	32,265	13,816	5,200	3,900	1,300
	PROJECTED[7]								
1972	51,100	35,600	15,400	46,000	31,800	14,100	5,100	3,800	1,300
1973	50,700	35,000	15,700	45,700	31,300	14,400	5,000	3,700	1,300
1974	50,300	34,400	15,900	45,400	30,800	14,600	4,900	3,600	1,300
1975	49,800	33,800	16,000	45,100	30,400	14,700	4,700	3,400	1,300
1976	49,500	33,500	16,000	44,900	30,200	14,700	4,600	3,300	1,300
1977	49,400	33,500	15,900	44,900	30,300	14,600	4,500	3,200	1,300
1978	49,300	33,600	15,700	44,900	30,500	14,400	4,400	3,100	1,300
1979	49,600	34,300	15,300	45,300	31,300	14,000	4,300	3,000	1,300
1980	50,200	35,400	14,800	45,900	32,400	13,500	4,300	3,000	1,300
1981	51,000	36,700	14,300	46,700	33,700	13,000	4,300	3,000	1,300

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Estimated unless otherwise noted. Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Fall enrollment in public schools not reported by grade in 1961; the grade breakdown for 1961 was estimated from school year enrollment.

[4] Includes some pupils enrolled in grades 7 and 8 of nonpublic secondary schools in 1965 through 1968.

[5] Reported data from Office of Education surveys.

[6] Estimates are based on data from the Office of Education and the National Catholic Educational Association.

[7] The projection of fall enrollment in regular day schools is based on the following assumptions: (1) Enrollment rates of the 5- and 6-year-old population in public school kindergarten and grade 1 will follow the 1961–71 trends; (2) the public school enrollment in grade 7 in a given year t will exceed the public school enrollment in grade 6 in year t–1 by 3.3 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1; (3) the public school enrollment in grade 9 in year t will exceed the public school enrollment in grade 8 in year t–1 by 5.3 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1; (4) the retention rate of public school grade 10 from grade 9 will follow the 1961–1971 trend with the restriction that it cannot exceed 100 percent; (5) the retention rates of all other public school grades will remain constant at the 1970 to 1971 levels; (6) enrollments in grades K–8 in Catholic elementary schools will decrease from 3.1 million in 1971 to 2.0 million in 1981; (7) enrollments in grades K–8 in all regular nonpublic day schools will decrease through 1981, and grades 9–12 in these schools will remain constant at the 1970 level.

NOTE:—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education publications: (a) *Statistics of Public Schools*, fall 1964 through 1971; (b) *Enrollment, Teachers, and Schoolhousing*, fall 1961 through 1963; (c) *Statistics of State School Systems, 1961–62*; (d) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*; (e) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools*, 1968–69; (f) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66*; (g) *Nonpublic School Enrollment in Grades 9–12, Fall 1964, and Graduates, 1963–64*; (h) *Statistics of Nonpublic Elementary Schools, 1961–62*; (i) *Statistics of Nonpublic Secondary Schools, 1960–61*; and (2) National Catholic Educational Association publication: *A Report on U.S. Catholic Schools, 1970–71* and prepublication data, 1971–72.

The population projections as of October 1, of 5– and 6–year–olds on which the enrollment projections in kindergarten and grade 1 are based, are consistent with Series C population projections in U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P–25, No. 470, November 1971. The C, D, and E population projections, together with definitions of each series, are shown in appendix B, table B–1.

Table B–4.—Enrollment in grades K–8 and 9–12 of regular day schools, with projections based on U.S. Census population projection Series E, by institutional control: United States, fall 1961 to 1981[1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K–12	K–8	9–12	K–12	K–8[3]	9–12[3]	K–12	K–8	9–12[4]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1961	43,164	32,695	10,469	37,464	28,095	9,369	5,700	[5] 4,600	[5] 1,100
1962	44,849	33,537	11,312	38,749	28,637	10,112	6,100	4,900	1,200
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	[5] 1,300
1964	47,716	35,025	12,691	41,416	30,025	11,391	6,300	5,000	[5] 1,300
1965	48,473	35,463	13,010	42,173	30,563	11,610	6,300	[5] 4,900	[5] 1,400
1966	49,239	35,945	13,294	43,039	31,145	11,894	6,200	4,800	1,400
1967	49,891	36,241	13,650	43,891	31,641	12,250	6,000	4,600	1,400
1968	50,744	36,626	14,118	44,944	32,226	12,718	5,800	[5] 4,400	[5] 1,400
1969	51,119	36,797	14,322	45,619	32,597	13,022	5,500	4,200	1,300
1970	51,309	36,677	14,632	45,909	32,577	13,332	5,400	[6] 4,100	[6] 1,300
1971	51,280	36,165	15,116	46,080	32,265	13,816	5,200	3,900	1,300
	PROJECTED[7]								
1972	51,100	35,600	15,400	46,000	31,800	14,100	5,100	3,800	1,300
1973	50,700	35,000	15,700	45,700	31,300	14,400	5,000	3,700	1,300
1974	50,300	34,400	15,900	45,400	30,800	14,600	4,900	3,600	1,300
1975	49,800	33,800	16,000	45,100	30,400	14,700	4,700	3,400	1,300
1976	49,400	33,400	16,000	44,800	30,100	14,700	4,600	3,300	1,300
1977	49,100	33,200	15,900	44,600	30,000	14,600	4,500	3,200	1,300
1978	48,700	33,000	15,700	44,300	29,900	14,400	4,400	3,100	1,300
1979	48,500	33,200	15,300	44,200	30,200	14,000	4,300	3,000	1,300
1980	48,400	33,600	14,800	44,100	30,600	13,500	4,300	3,000	1,300
1981	48,600	34,300	14,300	44,300	31,000	13,000	4,300	3,000	1,300

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Estimated unless otherwise noted. Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Fall enrollment in public schools not reported by grade in 1961; the grade breakdown for 1961 was estimated from school year enrollment.

[4] Includes some pupils enrolled in grades 7 and 8 of nonpublic secondary schools in 1965 through 1968.

[5] Reported data from Office of Education surveys.

[6] Estimates are based on data from the Office of Education and the National Catholic Educational Association.

[7] The projection of fall enrollment in regular day schools is based on the following assumptions: (1) Enrollment rates of the 5- and 6-year-old population in public school kindergarten and grade 1 will follow the 1961–1971 trends; (2) the public school enrollment in grade 7 in a given year t will exceed the public school enrollment in grade 6 in year t–1 by 3.3 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1; (3) the public school enrollment in grade 9 in year t will exceed the public school enrollment in grade 8 in year t–1 by 5.3 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1; (4) the retention rates of public school grade 10 from grade 9 will follow the 1961–1971 trend with the restriction that it cannot exceed 100 percent; (5) the retention rates of all other public school grades will remain constant at the 1970 to 1971 levels; (6) enrollments in grades K–8 in Catholic elementary schools will decrease from 3.1 million in 1971 to 2.0 million in 1981; and (7) enrollments in grades K–8 in all regular nonpublic day

schools will decrease through 1981, and grades 9–12 in these schools will remain constant at the 1970 level.

NOTE:—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES. Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education publications: (a) *Statistics of Public Schools*, fall 1964 through 1971; (b) *Enrollment, Teachers, and Schoolhousing*, fall 1961 through 1963; (c) *Statistics of State School Systems, 1961–62*; (d) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*; (e) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69*; (f) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66*; (g) *Nonpublic School Enrollment in Grades 9–12, Fall 1964, and Graduates, 1963–64*; (h) *Statistics of Nonpublic Elementary Schools, 1961–62*; (i) *Statistics of Nonpublic Secondary Schools, 1960–61*; and (2) National Catholic Educational Association publication. *A Report on U.S. Catholic Schools, 1970–71* and prepublication data, 1971–72.

The population projections as of October 1, of 5– and 6–year–olds on which the enrollment projections in kindergarten and grade 1 are based, are consistent with Series E population projections in U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P–25, No. 470 November 1971. The C, D, and E population projections, together with definitions of each series, are shown in appendix B, table B–1.

Table B–5.—First-year students enrollment for master's and doctor's degrees and for first-professional degrees, by sex: United States and outlying areas, fall 1960 to 1971 [1]

[In thousands]

Year (fall)	Enrollment for master's and doctor's degrees			Enrollment for first-professional degrees		
	Total	Men	Women	Total	Men	Women
1960 [2]	197	140	57	([3])	([3])	([3])
1961 [4]	217	152	65	([3])	([3])	([3])
1962 [4]	240	166	75	([3])	([3])	([3])
1963 [4]	271	184	87	([3])	([3])	([3])
1964 [4]	318	213	105	([3])	([3])	([3])
1965 [4]	359	237	122	([3])	([3])	([3])
1966	371	241	130	36	35	2
1967	428	270	158	42	39	2
1968	458	279	179	47	44	3
1969	494	296	199	56	52	4
1970	528	316	212	63	58	5
1971 [5]	534	316	218	71	65	6

[1] In 1970, the last year for which data are available, outlying areas made up slightly less than 0.5 percent of 1st-year enrollment for master's and doctor's degrees and 1 percent of 1st-year enrollment for first-professional degrees.

[2] Estimation of sex breakdown based on the percentage that the sum of men's master's degrees in 1961–62 and men's doctor's degrees in 1964–65 was of the sum of total master's degrees in 1961–62 and total doctor's degrees in 1964–65.

[3] Not collected prior to 1966.

[4] The percentage that men's enrollment was of total enrollment was interpolated.

[5] Estimates are based on the following assumptions: (1) The percentage that 1st-year enrollment for master's and doctor's degrees was of total resident graduate enrollment (table 17) in 1970 will remain constant to 1971; and (2) the percentage that 1st-year enrollment for first-professional degrees was of total enrollment for first-professional degrees will remain constant at the 1970 level in 1971.

NOTE.—Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Students Enrolled for Advanced Degrees*, fall 1966 through 1970; (2) *Enrollment for Master's and Higher Degrees, Fall 1965. Summary Report*, (3) *Enrollment for Master's and Higher Degrees, Fall 1964*; (4) *Enrollment for Advanced Degrees*, fall 1960 through 1963; (5) *Opening (Fall) Enrollment in Higher Education, 1971*; and (6) *Fall Enrollment in Higher Education, Supplementary Information, 1970*.

Table B–6.—Constant dollar index

[1971–72 = 100]

July to June	Consumer price index[1]	Construction cost index[2]
1961–62	73.078	56.693
1962–63	73.944	58.066
1963–64	74.999	59.668
1964–65	75.959	61.213
1965–66	77.608	63.501
1966–67	80.009	67.105
1967–68	82.679	70.709
1968–69	86.661	76.544
1969–70	91.793	81.865
1970–71	96.525	89.931
1971–72	100.000	100.000
1972–73	104.451	107.197
1973–74	108.902	114.393

[1] The monthly indexes were averaged on a July to June basis to correspond with the school year and converted to 1971–72 = 100. The 1967 = 100 index number for 1971–72 was 123.258.

[2] The monthly indexes were averaged on a July to June basis to correspond with the school year and converted to 1971–72 = 100. The 1967 = 100 index number for 1971–72 was 145.667.

[3] Estimated on 5-year trend, 1967–78 through 1971–72.

SOURCES: The Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor; and the American Appraisal Company Construction Cost Index, published in *Construction Review* by the U.S. Department of Commerce.

Table B–7.—Estimated receipts by regular and "other" educational institutions, by level, by control, and by source:United States, 1961–62 to 1969–70[1]

Source of funds by control and level	1961–62	1963–64	1965–66	1967–68	1969–70	1961–62	1963–64	1965–66	1967–68	1969–70
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	AMOUNT (in billions of current dollars)					PERCENT				
All levels:										
Total, public and nonpublic	$30.4	$36.5	$46.8	$58.8	$70.9	100.0	100.0	100.0	100.0	100.0
Federal	2.5	3.4	5.3	6.9	7.8	8.2	9.3	11.3	11.7	11.0
State	9.1	10.8	13.7	17.3	22.9	29.9	29.6	29.3	29.4	32.3
Local	11.3	12.8	15.5	18.9	21.9	37.2	35.1	33.1	32.2	30.9
All other	7.5	9.5	12.3	15.7	18.3	24.7	26.0	26.3	26.7	25.8
Total, public	24.1	28.5	36.9	46.8	57.5	100.0	100.0	100.0	100.0	100.0
Federal	1.7	2.2	3.9	5.2	6.1	7.1	7.7	10.6	11.1	10.6
State	9.0	10.7	13.6	17.2	22.8	37.3	37.6	36.8	36.8	39.7
Local	11.3	12.8	15.5	18.9	21.8	46.9	44.9	42.0	40.4	37.9
All other	2.1	2.8	3.9	5.5	6.8	8.7	9.8	10.6	11.7	11.8
Total, nonpublic	6.3	8.0	9.9	12.0	13.4	100.0	100.0	100.0	100.0	100.0
Federal	.8	1.2	1.4	1.7	1.7	12.7	15.0	14.1	14.2	12.7
State	.1	.1	.1	.1	.1	1.6	1.2	1.0	.8	.7
Local	([2])	([2])	([2])	([2])	.1	([3])	([3])	([3])	([3])	.8
All other	5.4	6.7	8.4	10.2	11.5	85.7	83.8	84.9	85.0	85.8

See footnotes at end of table

Table B–7.—Estimated receipts by regular and "other" educational institutions, by level, by control, and by source: United States, 1961–62 to 1969–70[1]—Continued

Source of funds by control and level	1961–62	1963–64	1965–66	1967–68	1969–70	1961–62	1963–64	1965–66	1967–68	1969–70
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	AMOUNT (in billions of current dollars)					**PERCENT**				
Elementary and secondary:										
Total, public and nonpublic	$21.3	$24.6	$30.9	$37.8	$45.1	100.0	100.0	100.0	100.0	100.0
Federal	.9	1.1	2.2	3.0	3.6	4.2	4.5	7.1	7.9	8.0
State	6.8	8.0	9.9	12.3	16.1	31.9	32.5	32.0	32.6	35.7
Local	11.1	12.5	15.1	18.3	20.9	52.1	50.8	48.9	48.4	46.3
All other	2.5	3.0	3.7	4.2	4.5	11.8	12.2	12.0	11.1	10.0
Total, public	18.9	21.7	27.3	33.7	40.7	100.0	100.0	100.0	100.0	100.0
Federal	.9	1.1	2.2	3.0	3.6	4.8	5.1	8.0	9.0	8.8
State	6.8	8.0	9.9	12.3	16.1	36.0	36.9	36.3	36.5	39.5
Local	11.1	12.5	15.1	18.3	20.9	58.7	57.6	55.3	54.2	51.5
All other	.1	.1	.1	.1	.1	.5	.4	.4	.3	.2
Total, nonpublic	2.4	2.9	3.6	4.1	4.4	100.0	100.0	100.0	100.0	100.0
Federal	...	...	...	...	...	...	...	...	...	...
State	...	...	...	...	...	...	...	...	...	...
Local	...	...	...	...	...	...	...	...	...	...
All other	2.4	2.9	3.6	4.1	4.4	100.0	100.0	100.0	100.0	100.0

Institutions of higher education:										
Total, public and nonpublic	9.1	11.9	15.9	21.0	25.8	100.0	100.0	100.0	100.0	100.0
Federal	1.6	2.3	3.1	3.9	4.2	17.6	19.3	19.5	18.5	16.3
State	2.3	2.8	3.8	5.0	6.8	25.3	23.6	23.9	23.8	26.4
Local	.2	.3	.4	.6	1.0	2.2	2.5	2.5	2.9	3.8
All other	5.0	6.5	8.6	11.5	13.8	54.9	54.6	54.1	54.8	53.5
Total, public	5.2	6.8	9.6	13.1	16.8	100.0	100.0	100.0	100.0	100.0
Federal	.8	1.1	1.7	2.2	2.5	16.0	16.9	17.6	17.1	15.0
State	2.2	2.7	3.7	4.9	6.7	41.2	39.7	38.4	37.7	40.0
Local	.2	.3	.4	.6	.9	4.2	4.3	4.1	4.5	5.1
All other	2.0	2.7	3.8	5.4	6.7	38.6	39.1	39.9	40.7	39.9
Total, nonpublic	3.9	5.1	6.3	7.9	9.0	100.0	100.0	100.0	100.0	100.0
Federal	.8	1.2	1.4	1.7	1.7	20.5	23.1	22.1	21.8	18.8
State	.1	.1	.1	.1	.1	1.5	1.3	1.5	1.2	1.6
Local	(2)	(2)	(2)	(2)	.1	.2	.2	.1	.3	.7
All other	3.0	3.8	4.8	6.1	7.1	77.8	75.4	76.3	76.7	78.9

[1] Includes estimates for "other" elementary and secondary schools such as residential schools for exceptional children, Federal schools for Indians, and federally operated schools on Federal installations. The annual receipts of "other" elementary and secondary schools were estimated as follows: Public, $200 million annually, 1961–62 to 1969–70; nonpublic, less than $50 million for 1961–62 and $100 million annually, 1963–64 to 1969–70.

[2] Less than $50 million.

[3] Less than 0.05 percent.

NOTE.—Receipts include revenue and nonrevenue receipts, current and plant-fund receipts, and proceeds of loans, less transfers of funds which would result in duplication, and less repayment of loans. All receipts and deductions concerning loans are included in "all other" sources. Deduction of transfers was made from data in "all other" sources.

Table B–8.—Federal funds for education and related activitites: Obligations for fiscal years 1962 to 1967 and outlay for fiscal years 1968 to 1973

[In thousands of dollars]

Type of support, level, and program area	New obligational authority [1]						Outlay					
	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972 (estimated)	1973 (estimated)
1	2	3	4	5	6	7	8	9	0	11	12	13
Part I. Federal Funds Supporting Education in Educational Institutions												
Total grants and loans	$2,173,700	$2,507,600	$2,749,300	$3,908,700	$6,779,578	$8,352,866	$7,804,454	$8,055,396	$9,222,139	$10,894,257	$12,148,749	$13,054,968
Grants, total	1,853,200	2,111,700	2,350,500	3,379,600	6,167,878	7,611,283	7,201,173	7,523,169	8,615,843	10,409,420	11,608,874	12,770,582
Elementary-secondary education	555,100	600,400	666,300	942,900	2,480,078	3,037,637	2,967,004	2,838,439	3,212,418	3,724,363	4,017,751	4,450,103
School assistance in federally affected areas	304,900	330,300	323,100	407,600	433,900	469,137	506,372	397,581	656,372	527,043	517,105	478,347
Economic opportunity programs [1]	53,000	60,900	67,000	123,500	404,300	721,257	628,533	552,434	534,482	664,355	701,063	682,109
National Defense Education Act—equipment [2]	59,300	58,700	92,900	90,900	104,400	109,200	109,009	74,316	58,547	44,647	45,820	36,760
Supporting services [3]	4,300	4,700	5,200	6,500	173,100	273,551	280,481	290,107	237,532	215,252	267,616	277,982
Assistance for educationally deprived children [4]					959,000	1,057,455	1,056,983	1,096,106	1,207,894	1,575,282	1,622,228	1,622,162
Teacher Corps	4,000	6,800	5,100		6,500	11,324	16,019	19,358	18,191	28,761	36,310	36,418
Vocational education	26,400	26,300	24,900	127,700	184,678	194,636	185,224	152,441	181,379	241,481	292,846	307,981
Dependents' schools abroad	40,500	45,300	61,500	80,500	86,100	87,533	68,220	108,589	137,138	146,615	160,342	182,907
Public lands revenue for schools	43,500	44,600	48,600	51,500	54,100	50,173	52,294	66,112	82,376	78,893	73,888	92,008
Assistance in special areas [5]	14,800	17,700	32,600	50,200	68,800	56,969	58,286	71,118	78,992	120,719	139,510	179,520
Veterans' education						1,294	3,200	4,924	6,233	13,763	17,681	19,054
Emergency school assistance										51,239	103,327	381,000
Revenue sharing												110,000
Educational Renewal [6]										1,235	22,472	24,603
Other [7]	4,400	5,100	5,400	4,500	5,200	5,108	2,383	5,353	13,282	15,078	17,543	19,252
Higher education	1,210,300	1,397,800	1,480,400	2,052,600	2,830,400	3,634,494	3,262,988	3,318,177	3,814,332	4,711,804	5,329,544	5,883,573
Basic research in U.S. educational institutions proper [8]	602,900	691,600	698,600	784,900	940,300	1,032,823	1,061,818	[9]1,020,905	985,784	1,026,652	1,129,017	[9]1,264,000
Research facilities [8]	121,800	157,900	133,500	191,700	194,000	250,568	199,790	238,516	225,130	222,253	166,379	[10]166,000
Training grants	196,000	234,600	261,200	282,400	365,500	363,608	381,116	404,990	704,689	769,295	907,493	1,044,768
Fellowships and traineeships	103,900	143,000	181,800	196,900	264,900	350,162	320,303	247,840	199,271	267,907	258,016	256,580
Facilities and equipment	37,100	41,000	56,100	384,100	668,900	822,203	549,382	482,387	513,162	518,944	409,717	321,730
Other institutional support	33,000	43,400	69,500	93,400	163,800	169,925	139,637	173,066	178,156	234,336	263,539	260,944
Other student assistance	103,900	69,900	62,300	100,400	214,200	590,586	608,883	740,498	1,003,594	1,662,939	2,183,933	2,558,501
Other higher education assistance	11,700	16,400	17,400	18,800	18,800	54,619	2,059	9,975	12,546	9,478	11,450	11,050

Vocational, technical and continuing education (not classifiable by level)	87,800	113,500	203,800	384,100	857,400	939,152	971,181	1,366,553	1,589,093	1,973,253	2,261,579	2,436,906
Vocational, technical and work training [11]	34,600	82,700	171,000	364,300	817,900	827,303	851,683	1,163,444	1,269,254	1,515,741	1,692,490	1,773,985
Veterans' education	49,900	29,000	25,100	10,300	6,300	54,000	79,645	123,970	244,634	357,414	455,295	527,757
General continuing education [12]	400	400	1,900	1,500	19,200	29,200	28,701	60,364	65,855	88,305	100,269	115,219
Training State and local personnel	2,900	1,400	5,800	8,000	14,000	28,649	11,152	18,775	9,350	11,793	13,525	19,945
Loans, total (higher education)	320,500	395,900	398,800	529,100	611,700	741,583	603,281	532,227	606,296	484,837	539,875	284,386
Student loan program, National Defense Education Act [13]	74,600	90,700	111,300	160,100	235,900	237,954	226,303	259,641	295,173	382,102	489,686	246,360
College facilities loans [14]	245,900	305,200	287,500	369,000	375,800	503,629	376,978	272,586	311,123	102,735	50,189	38,026
Part II. Other Federal Funds for Education and Related Activities												
Total	$2,777,364	$2,935,341	$3,239,851	$3,717,232	$3,903,859	$3,930,053	$3,605,629	$3,339,667	$3,428,724	$4,044,368	$4,804,107	$5,157,199
Applied research and development [8]	754,700	805,700	906,300	952,300	1,026,600	1,088,150	1,142,350	1,237,499	1,236,749	1,352,086	1,475,068	[9] 1,652,000
School lunch and milk programs	366,900	379,300	411,700	507,500	421,900	448,005	543,845	597,700	676,196	928,186	1,309,146	1,374,094
Training of Federal personnel	1,177,500	1,279,600	1,370,400	1,577,900	1,706,700	1,537,399	1,138,333	639,853	691,694	854,930	928,957	961,795
U.S. academies	59,416	59,099	119,796	130,971	154,593	133,002	141,599	170,468	184,262	218,869	234,464	237,376
Professional training, military	1,086,584	1,188,601	1,202,604	1,373,229	1,470,507	1,309,948	923,470	375,105	492,040	614,099	671,548	700,703
Civilian education and training in non-Federal facilities	31,500	31,900	48,000	73,700	81,600	94,449	73,264	94,280	15,392	21,962	22,945	23,716
Library services	22,200	23,900	25,300	82,900	86,300	141,381	136,099	186,124	170,135	186,338	236,706	231,048
Grants to public libraries	6,900	7,400	7,500	54,900	55,000	76,000	62,017	62,794	50,235	52,975	63,940	47,169
National library services [15]	15,300	16,500	17,800	28,000	31,300	65,381	74,082	123,330	119,900	133,363	172,766	183,879
International education	109,100	116,100	130,000	178,700	232,658	326,742	272,008	278,135	193,464	180,668	214,450	227,393
Educational exchange program	28,100	35,600	38,000	37,400	53,500	44,712	41,670	38,172	30,850	36,101	37,436	45,495
Agency for International Development projects	81,000	80,500	84,600	87,800	111,800	203,270	140,000	170,000	111,325	105,608	140,529	140,943
Action (previously Peace Corps)				44,300	57,175	41,944	43,641	44,095	28,150	25,026	21,702	23,872
Other international education and training			7,400	9,200	10,183	36,816	46,697	25,868	23,139	13,933	14,783	17,083
Other	346,964	330,741	396,151	417,932	429,701	388,376	372,994	400,356	460,486	542,160	639,780	710,869
Agricultural Extension Service	59,300	63,000	79,400	85,400	90,700	92,824	90,030	97,273	124,526	154,672	173,300	181,600
Educational television facilities			5,200	5,100	15,200	3,304	6,737	8,756	19,163	28,580	43,846	57,152
Education in Federal correctional institutions	2,100	2,500	2,900	3,500	3,600	6,341	3,662	3,816	5,007	6,333	8,305	9,305
Value of surplus property transferred												
Acquisition cost of personal property	244,900	223,800	268,700	277,300	266,400	215,509	199,383	223,503	246,330	255,668	304,245	334,670
Fair value of real property	21,000	21,100	15,100	17,900	15,100	16,684	26,276	13,254	12,468	25,718	17,900	17,900
Other [16]	19,664	20,341	24,851	28,732	38,701	53,714	46,906	53,754	52,992	71,189	92,184	110,242

[1] Includes Office of Economic Opportunity, Indian education, Appalachian Regional Development, Department of Labor, NYC in-school work support, and Head Start Preschool.

[2] Includes small amounts for National Defense Education Act loans to private elementary-secondary schools.

[3] Includes supplemental centers, school library materials, strengthening State education agencies, captioned films for the deaf, dissemination of information, school counseling and testing, American Printing House for the Blind, planning and evaluation, National Aeronautics and Space Administration elementary-secondary schools program, and Civil Rights Act technical assistance.

[4] Includes Elementary and Secondary Education Act title I, handicapped children, dropout prevention, bilingual education, Kendall School for the Deaf, and Model School for the Deaf.

[5] Includes District of Columbia, Canal Zone, territories and dependencies, Cuban refugees, and payments in lieu of taxes by the Atomic Energy Commission and the Tennessee Valley Authority.

[6] Includes Office of Education and education programs and expenditures not otherwise included.

[7] Includes elementary-secondary programs of the National Science Foundation, National Foundation on the Arts and the Humanities, Department of Defense, Junior ROTC, National Aeronautics and Space Administration, and Office of Child Development programs not included elsewhere.

[8] Data are from *Federal Funds for Research, Development, and Other Scientific Activities*, annual publication, National Science Foundation. Includes university-operated research centers.

[9] 1973 amounts are estimated by the Office of Education at 12-percent increase over 1972 level.

[10] Estimated by Office of Education, same level as 1972.

[11] Includes adult vocational education, Manpower Training programs.

[12] Includes Office of Education, Action, Social and Rehabilitation, Department of Housing and Urban Development, Office of Economic Development, and additional programs for continuing education.

[13] Includes National Defense Education Act and insured student loans.

[14] Includes Department of Housing and Urban Development college housing loans and Office of Education college facilities loans.

[15] Includes Library of Congress, Smithsonian Institution, General Services Administration, National Archives and Records Service, National Agricultural Library, National Library of Medicine, and Government Printing Office depository library and catalog and index activities.

[16] Includes Office of Education and education programs and administration expenditures not otherwise included.

NOTE.—Because of the exclusion of some programs and because data are based on Federal disbursement rather than the authority to spend, the figures since 1968 are not strictly comparable with those for earlier years.

SOURCE: Compiled by the National Center for Educational Statistics, Office of Education, U.S. Department of Health, Education, and Welfare, from information collected by the Office of Management and Budget for its report, *Special Analyses, Budget of the United States, Fiscal year 1973*. Research data are from *Federal Funds for Research, Development, and Other Scientific Activities*, Vol. XX, National Science Foundation.

Table B–9.—Office of Education expenditures, by legislative program: Fiscal years 1960 to 1973

[In thousands of dollars]

Legislative program	1960	1962	1964	1966	1968	1969	1970	1971	1972 [1]	1973 [1]
1	2	3	4	5	6	7	8	9	10	11
Total	$459,965	$547,408	$673,005	$2,024,428	$3,613,476	$3,472,793	$4,111,598	$4,543,641	$4,867,322	$5,187,004
Elementary and Secondary Education Act [2]	811	1,247	1,648	816,982	1,327,723	1,359,843	1,412,949	1,743,115	1,820,636	1,827,754
Title I. Educationally deprived children				746,904	1,049,116	1,073,033	[3] 1,170,355	1,516,210	1,545,330	1,527,634
Title II. Library resources				47,871	91,054	64,530	44,670	59,253	76,950	76,800
Title III. Supplementary education centers				10,938	161,256	194,058	158,781	112,071	132,550	142,270
Title V. Strengthening State departments of education [4]	811	1,247	1,648	11,269	26,297	27,463	29,247	28,545	31,708	37,300
Title VII. Bilingual education						456	6,192	20,876	24,750	34,180
Title VIII. Dropout prevention						303	3,704	6,160	9,350	9,570
School assistance in federally affected areas	258,198	282,909	334,289	409,593	506,372	397,581	656,372	527,043	517,105	478,347
Maintenance and operation	174,850	226,419	283,688	353,851	470,787	374,589	620,463	506,851	495,092	453,053
Construction	83,348	56,490	50,601	55,742	35,585	22,992	35,909	20,192	22,013	25,294
Higher Education Act				35,232	365,884	315,480	531,090	653,307	771,954	1,056,388
Title I. University community services				3,926	9,897	8,186	10,669	10,963	9,550	5,700
Title II. Library programs [5]					48,906		34,063	5,596	10,525	13,207
College library resources					11,381	3,005	7,005	4,769	3,270	2,794
Library training				300	5,478	5,500	5,721	7,079		
Acquisition and cataloging by Library of Congress					22,428	26,944	27,731	35,894	39,000	57,600
Title III. Strengthening developing institutions										
Title IV. Student assistance					103,104	91,184	314,652	352,341	398,742	644,258
Equal opportunity grants				30,634	111,812	95,058				
Work study program and cooperative education					28,947	49,118	98,330	150,396	194,296	206,179
Insured loans						−714	2,323	11,035	24,371	27,524
Student loans insurance fund				362	16,019	19,358	18,191	28,761	36,310	36,418
Title V. Teacher Corps										
Title VI. Undergraduate instructional assistance					5,415	14,553	4,968	2,258	6,893	11,100
Television and other equipment										
Special programs for disadvantaged—Talent Search and remedial assistance, special services, Upward Bound				10	2,497	3,288	7,437	44,215	48,997	51,608
Higher Education Facilities Act				105,526	461,965	414,967	437,387	340,033	216,276	139,761
Title I. Public community colleges and technical institutes				14,097	80,202	69,304	317,227	277,690	188,154	98,319
Other undergraduate facilities				34,642	236,861	199,337				
State administration and planning				1,675	5,066	4,885	5,961	5,540	6,050	3,550

See footnotes at end of table

Table B–9.—Office of Education expenditures, by legislative program: Fiscal years 1960 to 1973—Continued

[In thousands of dollars]

Legislative program	1960	1962	1964	1966	1968	1969	1970	1971	1972 [1]	1973 [1]
1	2	3	4	5	6	7	8	9	10	11
Major disaster areas					147	284				
Title II Graduate facilities				4,220	37,970	46,924				
Title III College construction loans				50,892	101,719	94,233	114,199	56,802	18,072	27,892
Construction loans interest subsidization								1	4,000	10,000
Vocational education [6]	45,179	51,762	54,503	128,468	255,224	256,595	285,568	370,954	436,432	463,652
Vocational Education Act of 1963										
George-Barden and supplemental acts	45,179	51,762	54,503	118,396	250,197	237,539	271,282	330,832	377,030	400,469
Smith-Hughes Act										
Work-study program and cooperative education				10,072	5,027	1,099	5,322	16,011	21,625	20,530
Innovative programs in vocational education and research						357	1,593	8,801	14,310	17,460
National advisory council							94			
State advisory councils							2,218			
Consumer and homemaking education						13,600	5,059	15,310	23,467	25,193
Education professions development	8,683	13,893	13,969	42,147	60,271	49,655	104,671	93,541	94,871	93,053
Elementary and secondary teacher training programs [7]	8,683	13,893	13,969	42,147	58,387	42,078	72,924	63,078	59,488	67,305
Preschool, elementary, and secondary training grants to States						2,085	21,500	22,525	24,483	15,448
Higher education training programs					1,884	5,492	10,247	7,938	10,900	10,300
Library Services and Construction Act	6,056	6,932	7,443	40,915	62,017	62,794	52,687	52,270	63,214	46,435
Public library services	6,056	6,932	7,443	25,000	32,391	30,722	30,146	39,482	52,747	38,418
Construction				15,915	26,615	26,897	17,527	12,788	10,467	8,017
Interlibrary cooperation					1,096	2,131	1,671			
State institutional library service					1,175	1,959	1,951			
Library services to physically handicapped					740	1,085	1,392			
Educational improvement for the handicapped	380	1,191	4,982	15,366	40,955	56,228	79,065	85,146	104,182	113,211
Education for the handicapped					7,867	22,088	31,073	29,280	37,451	39,805
Teacher education and recruitment	308	943	2,466	10,448	24,162	21,680	31,219	27,366	32,096	34,612
Research and innovation (includes Deaf-Blind and Resource Centers)			1,016	3,227	8,277	9,737	12,515	20,667	18,040	20,402
Captioned films and media services	72	248	1,500	1,691	649	2,640	4,258	5,079	9,927	10,954
Early childhood education						83		2,754	6,668	7,438

National Defense Education Act	$117,965	$158,801	$216,338	$320,172	$370,034	$353,869	$332,898	$330,783	$402,310	$122,241
Title II. Student loans and cancellations	40,326	74,532	111,729	177,394	182,825	196,621	194,520	231,706	295,390	40,181
Title III. Instructional assistance:										
Grants and loans [8]	49,848	39,510	56,131	76,175	85,916	52,328	58,547	44,647	45,820	36,760
Title IV. College teacher fellowships	4,620	17,313	19,680	31,974	60,650	70,337	63,518	40,884	50,000	30,000
Title V. Guidance, counseling, and testing	12,870	14,064	13,710	22,017	23,093	21,988				
Title VI. Language development [9]										
Language and area centers, fellowships, and research	10,301	13,382	15,088	12,612	17,550	12,595	16,313	13,546	11,100	15,300
Research and development	6,004	7,461	12,712	31,245	79,955	84,714	87,823	117,049	155,850	150,537
Training and research					4,832	4,470	6,736	6,929	4,243	2,840
Construction					333	490	1,917	3,582	12,886	10,232
Research and development and educational media research and dissemination (includes amounts for research in education renewal proposal) [10]	6,004	7,461	12,712	31,245	74,790	79,754	79,170	106,538	138,719	137,465
Adult basic education [11]				33,616	28,701	37,527	43,464	57,018	60,302	57,480
Civil rights activities				5,291	7,437	8,239	10,608	19,132	19,513	19,000
Land-grant colleges	5,052	10,744	14,500	14,500	14,500	14,550	21,961	12,680	12,600	2,600
Education revenue sharing										110,000
Special foreign currency program training, research and study (grants to American institutions overseas)		6	138	500	857	364	774	1,749	2,749	3,627
Educational broadcasting facilities [12]						3,756	4,163	5,580	8,846	12,152
Follow Through									2,222	34,700
Emergency school assistance								51,239	103,327	381,000
Office of Education salaries and expenses, including technical services and planning and evaluation	11,608	12,664	14,251	25,901	40,906	44,754	47,714	66,026	71,223	74,380
Miscellaneous expired accounts								17,745	3,708	686
Consolidated Working Fund—net advances and reimbursements	+29	−202	−1,768	−1,026	−9,325	+11,877	+2,404	−769		

Table B–9.—Office of Education expenditures, by legislative program: Fiscal years 1960 to 1973—Continued

[In thousands of dollars]

Legislative program	1960	1962	1964	1966	1968	1969	1970	1971	1972 [1]	1973 [1]
1	2	3	4	5	6	7	8	9	10	11
Expenditures from funds transferred to the Office of Education by other Federal agencies [13]										
Manpower Development and Training Act [14]			$64,777	$75,532	$99,451	$103,691	$121,451	$141,529		
Educational television facilities			1,962	4,663	6,737	0	0			
Mutual exchange activities (foreign currency) [15]				1,592	1,434	1,303	930	944		
Appalachian Regional Development and Training Act [16]					21,753	22,383	27,128	37,906		
Cuban Refugee Program		$5,195	9,603	9,302	16,990	18,377	19,488	19,851		
Office of Economic Opportunity				54,681	[17] 686	2,250	38,234	47,280		
Consolidated Working Fund: gross outlay	$62	3,068	2,250	10,515	11,395	14,763	6,165	56,000		

[1] Estimated.
[2] Title VI for education of the handicapped is not included here but is included under "Educational improvement for the handicapped."
[3] Includes some elementary-secondary school expenditures from expired account.
[4] Includes title X, National Defense Education Act (NDEA).
[5] Amounts for college library improvement are included under research and development.
[6] Amounts for vocational research are included under research and development.
[7] Includes funds for teacher training institutes (after 1969) provided under the National Foundation on the Arts and the Humanities Act and NDEA.
[8] Includes assistance under the National Foundation on the Arts and the Humanities Act.
[9] Includes Fulbright-Hays Act.
[10] Includes amounts for college library improvement and vocational research in addition to other R & D funds.
[11] Includes amounts for adult vocational education and adult vocational education teacher training.
[12] Amounts for this activity supported with transferred funds prior to 1969.
[13] Amounts listed below are not included in the Office of Education expenditure totals.
[14] Includes amounts for Area Redevelopment Act.
[15] Includes Educational Exchange.
[16] Funds transferred prior to 1967 are included in the Consolidated Working Fund.
[17] Some OEO transfers also included in the Consolidated Working Fund.

SOURCE: Compiled by the National Center for Educational Statistics and the Office of Administration, Office of Education, U.S. Department of Health, Education, and Welfare.

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